



# PROPOSED RULE MAKING

**CR-102 (June 2004)**

(Implements RCW 34.05.320)

Do NOT use for expedited rule making

Agency: Department of Health

- ☒ Preproposal Statement of Inquiry was filed as WSR 04-06-044 ; or  
☐ Expedited Rule Making--Proposed notice was filed as WSR ; or  
☐ Proposal is exempt under RCW 34.05.310(4).

- ☒ Original Notice  
☐ Supplemental Notice to WSR  
☐ Continuance of WSR

**Title of rule and other identifying information: (Describe Subject)**

Water Use Efficiency, Group A Public Water Supplies, chapter 246-290 WAC. This rule establishes water use efficiency requirements for public water systems that are also municipal water suppliers as defined in RCW 90.03.015.

**Hearing location(s):**

August 29, 2006  
Ramada Inn at Spokane Airport  
8809 Airport Road  
Spokane, WA 99212

August 31, 2006  
King Oscar Convention Center  
8820 South Hosmer Street  
Tacoma, WA 98444

**Date:** August 29 & 31, 2006, August 31, 2006 **Time:** 5:00 PM**Submit written comments to:**

Name: Theresa Phillips  
Address:  
PO Box 47822  
Olympia, Washington 98504-7822

**Web site:** <http://www3.doh.wa.gov/policyreview/>  
**fax:** (360) 236-2253 **by (date)** 08/31/2006

**Assistance for persons with disabilities:** Contact  
Theresa Phillips by 08/15/2006  
TTY (800) 833-6388 or ( ) 711

**Date of intended adoption:** 09/15/2006

(Note: This is NOT the effective date)

**Purpose of the proposal and its anticipated effects, including any changes in existing rules:**

See attachment A.

**Reasons supporting proposal:**

This proposed rule carries out the intent of RCW 70.119A.180 by setting standards for the efficient use of water by municipal water suppliers. These changes will increase a water system's ability to save water for future growth, ensures good stewardship of the state's limited water resources, and enhances efficient water system operation and maintenance.

**Statutory authority for adoption:**

RCW 70.119A.180

**Statute being implemented:**

RCW 70.119A.180

**Is rule necessary because of a:**

- Federal Law? ☐ Yes ☒ No  
Federal Court Decision? ☐ Yes ☒ No  
State Court Decision? ☐ Yes ☒ No

If yes, CITATION:

**DATE****NAME (type or print)**

Mary C. Selecky

**SIGNATURE****TITLE**

Secretary

**CODE REVISER USE ONLY**CODE REVISER'S OFFICE  
STATE OF WASHINGTON  
FILED

JUL 19 2006

TIME

WSR

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(COMPLETE REVERSE SIDE)

Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters:  
None

Name of proponent: (person or organization)  
Washington State Department of Health.

- ☐ Private  
☐ Public  
☒ Governmental

Name of agency personnel responsible for:

	Name	Office Location	Phone
Drafting	Theresa Phillips	PO Box 47822, Olympia, WA 98504-7822	(360) 236-3147
Implementation	Theresa Phillips	PO Box 47822, Olympia, WA 98504-7822	(360) 236-3147
Enforcement	Theresa Phillips	PO Box 47822, Olympia, WA 98504-7822	(360) 236-3147

Has a small business economic impact statement been prepared under chapter 19.85 RCW?

- ☒ Yes. Attach copy of small business economic impact statement.

A copy of the statement may be obtained by contacting:

Name: Theresa Phillips

Address:

PO Box 47822

Olympia, Washington 98504-7822

phone: (360) 236-3147

fax: (360) 236-2253

e-mail: [theresa.phillips@doh.wa.gov](mailto:theresa.phillips@doh.wa.gov)

- ☐ No. Explain why no statement was prepared.

Is a cost-benefit analysis required under RCW 34.05.328?

- ☒ Yes. A preliminary cost-benefit analysis may be obtained by contacting:

Name: Theresa Phillips

Address:

PO Box 47822

Olympia, Washington 98504-7822

phone: (360) 236-3147

fax: (360) 236-2253

e-mail: [theresa.phillips@doh.wa.gov](mailto:theresa.phillips@doh.wa.gov)

- ☐ No. Please explain:

## Attachment A

### **Purpose of the proposal and its anticipated effects, including any changes in existing rules:**

The purpose of the proposed rule is to ensure efficient use of water by adding planning requirements for data collection, demand forecasting, evaluation of leakage and water use efficiency measures, a distribution leakage standard, requirements for goal-setting, and performance reporting. The proposal will help preserve the state's water resources for future growth, and enhance public health protection through improved system reliability. The proposal involves amendments to sections 010 definitions, 100 water system plan, 105 small water system management program, 132 interties, 221 water demand design criteria, 420 reliability and emergency response, 480 recordkeeping and reporting, and creates new section on 496 metering requirements, 800 purpose, 810 water use efficiency program, 820 distribution system leakage standard, 830 goal setting, 840 performance reports, and 990 water system evaluation and project review and approval fees.

## **Small Business Economic Impact Statement Chapter 246-290 WAC Water Use Efficiency**

### **Is a Small Business Economic Impact Statement Required for this Proposed Rule?**

The Regulatory Fairness Act, RCW 19.85, requires agencies to determine whether proposed rules will have a disproportionate impact on small businesses and provide mitigation when appropriate. This Small Business Economic Impact Statement (SBEIS) has been prepared because this proposed rule imposes more than minor costs on small businesses. The Department of Health (DOH) made this determination by identifying the affected industries and using Minor Impact Tables developed by DOH. The affected industries are those with Standard Industrial Classification Code 4941 for Water Supply Industries. According to DOH's Minor Impact Tables the minor impact threshold for this classification is \$66.10. This figure is based on a one-time cost of one percent of average revenue. The cost of this proposed rule exceeds \$66.10.

### **Which Industries are Affected by this Proposed Rule?**

The affected businesses are entities that own water systems that meet the definition of municipal water supplier in RCW 90.03.015. This includes community water systems serving more than 15 residential connections and some noncommunity water systems. DOH estimates that 2,124 community water systems and 770 noncommunity water systems will be affected by this proposed rule. The total number of businesses affected will be smaller because many entities own several water systems. For the purpose of this analysis, cost estimates are based on the cost to each water system. For more details about the water systems affected by this proposed rule, see Section 2 of DOH's *Preliminary Significant Analysis and Small Business Economic Impact Statement for Rule Concerning Chapter 246-290 WAC Water Use Efficiency*.

### **What are the Costs of Complying with this Proposed Rule?**

DOH estimated the costs associated with this proposed rule and described them in detail in Section 6 of DOH's *Preliminary Significant Analysis and Small Business Economic Impact Statement for Rule Concerning Chapter 246-290 WAC Water Use Efficiency*. Since the cost of the proposed rule exceeds the minor cost threshold, DOH must determine whether the proposed rule will have a disproportionate impact on small businesses that must comply with the proposed rule and provide mitigation when appropriate. An analysis of the overall costs is in Section 5 of DOH's *Preliminary Significant Analysis and Small Business Economic Impact Statement for Rule Concerning Chapter 246-290 WAC Water Use Efficiency*. The next section of this analysis includes examples of the costs the department identified to evaluate the impact to small businesses.

### **Does this Proposed Rule Impose a Disproportionate Impact on Small Businesses?**

The Regulatory Fairness Act requires agencies to:

“...determine whether the proposed rule will have a disproportionate impact on small businesses, the impact statement must compare the cost of

compliance for small business with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules...”

Defining the set of water systems that represent the largest ten percent is difficult. The proposed rule is expected to affect approximately 3,000 water systems. The number of municipal water suppliers that operate these water systems is smaller because some own more than one water system. This analysis focuses on the water system as opposed to the municipal water supplier because implementation and compliance will be carried out on a system-by-system basis. The table below illustrates that the 300 water systems serving the largest number of total connections reach well into the “small” category of water systems. If the number of people served is used, which would be roughly proportional to volume of water sold, the set of large water systems are only a few very large water systems.

DOH concluded that the best way to illustrate how the proposed rule affects water systems of different sizes is to look at each of the four size categories used in Section 2 of DOH’s *Preliminary Significant Analysis and Small Business Economic Impact Statement for Rule Concerning Chapter 246-290 WAC Water Use Efficiency*.

#### Community Water Systems Affected by the Proposed Water Use Efficiency Rule

Size Category	Residential Connections	Number of Water Systems	Percent of Water Systems	Number of Residents Served	Percent of Residents Served
Very Small	< 100	1,369	64%	131,050	2%
Small	100 – 999	549	26%	421,702	8%
Medium	1,000 – 9,999	169	8%	1,539,152	29%
Large	> 9,999	37	2%	3,212,226	61%
Total		2,124	100%	5,304,130	100%

The new costs that are not due to provisions taken directly from statute fall into two general categories: procedures and actions. Procedures include activities such as developing plans, holding meetings, collecting information, and submitting that information to DOH. Actions include water use efficiency program implementation, finding and repairing leaks, installing, reading, and maintaining meters. Except for the costs associated with service meters, DOH was either unable to determine the costs or the costs associated with this rule are already required by existing statute or rule.

#### Procedural Costs

Section 5, of DOH’s *Preliminary Significant Analysis and Small Business Economic Impact Statement for Rule Concerning Chapter 246-290 WAC Water Use Efficiency* provides estimates for the procedural activities associated with the proposed rule. Those costs are summarized below. The costs used for this analysis are associated with water system plan development. Many small water systems are only required to develop a small water system management program. The water system plan costs were used because they are slightly higher. The cost of developing a Water Loss Control Action Plan is also included. This will not be required for all

water systems, but it is included here to reflect the higher cost that some water systems will accrue.

### Average Annual Cost of Procedural Activities – Proposed Water Use Efficiency Rule

	Very Small < 100 Connections	Small 100 – 999 Connections	Medium 1,000 – 9,999 Connections	Large > 9,999 Connections
<b>Procedural Cost for Water Systems Developing a Water System Plan</b>	\$1,364	\$3,555	\$7,484	\$8,121
<b>Water Loss Control Action Plan Development Costs</b>	\$348	\$649	\$877	\$1,247
<b>Total</b>	<b>\$1,712</b>	<b>\$4,204</b>	<b>\$8,361</b>	<b>\$9,368</b>

The Regulatory Fairness Act, RCW 19.85, directs agencies to determine if costs are disproportionate "...using one or more of the following as a basis for comparing costs:

- (a) Cost per employee;
- (b) Cost per hour of labor; or
- (c) Cost per one hundred dollars of sales."

DOH staff conducted an extensive search of available data and was unable to find data related to number of employees, hours of labor, or sales for all affected business. U.S. Department of Labor and Industry statistics show that the smallest for-profit entities in the water supply industry have an average of one employee and the largest an average of 20 employees. DOH staff feel that this is representative of most entities in the water supply industry. This would not hold true for large cities such as Seattle and Spokane. Those are likely to have hundreds of employees.

To illustrate the cost of procedural activities associated with the proposed rule, the table below presents these cost using two approaches. The first shows the cost per connection using the average number of connections served by water systems in each size category. The second assumes an average number of employees for water systems in each size category. Using either approach, this proposed rule appears to have a disproportionate impact on small businesses.

### Cost Comparison for Proposed Water Use Efficiency Rule

	Very Small < 100 Connections	Small 100 – 999 Connections	Medium 1,000 – 9,999 Connections	Large > 9,999 Connections
<b>Procedural Costs</b>	\$1,712	\$4,204	\$8,361	\$9,368
<b>Average Number of Connections</b>	40	324	3,218	27,014
<b>Cost per Connection</b>	\$43	\$13	\$3	< \$1
<b>Average Number of Employees</b>	1	2	20	150
<b>Cost per Employees</b>	\$1,712	\$2,102	\$418	\$94

## **Service Meter Costs**

The cost of meter installation and maintenance was assessed only for water systems that are not already fully metered. Based on surveys conducted by DOH and experienced field staff, it is assumed that virtually all large water systems are fully metered and that approximately 40 percent of the smallest water systems are not. While the costs associated with service meters are the same for water systems of different sizes, the impact of that cost could be considered disproportionate, because more small water systems will need to install meters and the revenue base of smaller water systems is considerably smaller than large water systems.

### **If the Proposed Rule Imposes a Disproportionate Impact on Small Businesses, What Efforts were Taken to Reduce that Impact?**

The proposed rule contains a number of features that were incorporated to minimize the cost and complexity of proposed rule implementation.

1. Planning requirements are integrated to the maximum extent possible with current planning requirements.
2. Data collection and reporting requirements are limited to only those elements that were deemed essential to meet the purposes of the law.
3. Goal-setting processes are structured to allow the municipal water supplier to combine them with their water system plan update process.
4. Municipal water suppliers are allowed to use existing processes to meet the public forum requirements.
5. Municipal water suppliers are allowed to measure production at any point prior to their distribution system. This will allow them to use existing source meters.
6. Performance reports include leakage data to avoid a separate reporting mechanism for the distribution system leakage standard.
7. Municipal water suppliers were given a generous amount of time (10 years) to install meters.
8. Municipal water suppliers may raise technical and economic issues related to the distribution system leakage standard in their Water Loss Control Action Plans.

A number of features were also incorporated specifically to minimize the burden to small municipal water suppliers.

1. Water systems that prepare small water system management programs have simplified requirements for source descriptions.
2. Water systems with fewer than 1,000 connections have simplified requirements for cost-effectiveness evaluations.
3. The number of water use efficiency measures that must be evaluated or implemented varies with water system size.
4. Water systems with fewer than 1,000 connections are not required to describe seasonal variations in consumption patterns.
5. The performance reporting requirement is delayed by one year for water systems with fewer than 1,000 connections.
6. Water systems with fewer than 1,000 connections are not required to assess the water savings from all measures they determine to be cost-effective but do not implement.



7. Water systems with fewer than 1,000 connections are not required to evaluate opportunities for reclaimed water.

### **How are Small Businesses Involved in the Development of this Proposed Rule?**

DOH staff worked closely with constituents and the public to minimize the burden of this proposed rule. The primary mechanism for input was a subcommittee of the Washington Water Supply Advisory Committee to assist DOH with development of this regulation. The Water Use Efficiency Subcommittee consisted of 34 members, which included a cross-section of utilities, local governments, environmental-interest groups, business groups, state agencies, and utility customers. Tribal representatives also observed the process. Small water systems were given three seats on the Water Use Efficiency Subcommittee. One seat was given to a representative from business interests. Each meeting afforded time for public comments. In addition to committee members, small water system owners typically attended the meetings as members of the general public and provided comments. Repeatedly, the small water system representatives voiced the opinion that, while DOH should minimize costs to small water systems, those efforts should not dilute the basic requirements in the authorizing statute.

In July 2004, DOH distributed an informal water use efficiency regulation. This was sent to all Group A public water systems and stakeholder groups. All comments were reviewed and considered in revision of the proposed rule. DOH developed a written response to all comments received during this informal review.

DOH made additional efforts to obtain input from the Washington PUD Association. PUD's typically manage many small water systems and provided insight into the challenges facing small water systems.

DOH staff met with a committee member representing small water systems that also represented a business that owned and operated several small water systems regulated by the Utilities and Transportation Commission. Those meetings focused on the unique challenges faced by the Utilities and Transportation Commission-regulated entities.

DOH staff made several presentations during development of the regulation targeted toward small water systems. In particular, there were special sessions for small water systems during the 2004 Drinking Water Seminars and presentations made at the 2003 and 2004 Evergreen Rural Water of Washington and Water and Wastewater Operators of Washington conferences.

### **Conclusion**

This proposed rule will have significant costs for all municipal water suppliers, including those that are small businesses. Those costs are expected to have a disproportionate impact on municipal water suppliers that own small water systems. DOH staff consulted with business interests and small water system owners throughout the rule development process and incorporated several provisions to minimize the cost of the proposed rule for small businesses while still ensuring it meets the intent of the Washington State Legislature.

AMENDATORY SECTION (Amending WSR 04-04-056, filed 1/30/04, effective 3/1/04)

**WAC 246-290-010 Definitions.** Abbreviations and acronyms:

ADD - average day demand;  
AG - air gap;  
ANSI - American National Standards Institute;  
APWA - American Public Works Association;  
ASCE - American Society of Civil Engineers;  
AVB - atmospheric vacuum breaker;  
AWWA - American Water Works Association;  
BAT - best available technology;  
BAT - backflow assembly tester (for WAC 246-29-490);  
C - residual disinfectant concentration in mg/L;  
CCS - cross-connection control specialist;  
CFR - code of federal regulations;  
CPE - comprehensive performance evaluation;  
CT - the mathematical product in mg/L - minutes of "C" and  
"T";  
CTA - comprehensive technical assistance;  
CWSSA - critical water supply service area;  
DBPs - disinfection by-products;  
DCDA - double check detector assembly;  
DCVA - double check valve assembly;  
EPA - Environmental Protection Agency;  
ERU - equivalent residential unit;  
gph - gallons per hour;  
gpm - gallons per minute;  
GAC - granular activated carbon;  
GAC10 - granular activated carbon with ten-minute empty bed  
contact time based on average daily flow and one hundred eighty-day  
reactivation frequency;  
GWI - ground water under the direct influence of surface  
water;  
HAA5 - haloacetic acids (five);  
HPC - heterotrophic plate count;  
IAPMO - International Association of Plumbing and Mechanical  
Officials;  
kPa - kilo pascal (SI units of pressure);  
MCL - maximum contaminant level;  
MDD - maximum day demand;  
mg/L - milligrams per liter (1 mg/L = 1 ppm);  
mL - milliliter;  
mm - millimeter;  
MRDL - maximum residual disinfectant level;

MRDLG - maximum residual disinfectant level goal;  
 MTTP - maximum total trihalomethane potential;  
 NSF - National Sanitation Foundation;  
 NTNC - nontransient **noncommunity**;  
 NTU - nephelometric turbidity unit;  
 PAA - project approval application;  
 pCi/L - picocuries per liter;  
 PHD - peak hourly demand;  
 ppm - parts per million (1 ppm = 1 mg/L);  
 psi - pounds per square inch;  
 PVBA - pressure vacuum breaker assembly;  
 RPBA - reduced pressure backflow assembly;  
 RPDA - reduced pressure detector assembly;  
 SAL - state advisory level;  
 SCA - sanitary control area;  
 SDWA - Safe Drinking Water Act;  
 SEPA - State Environmental Policy Act;  
 SOC - synthetic organic chemical;  
 SMA - satellite management agency;  
 SPI - special purpose investigation;  
 SRF - state revolving fund;  
 SUVA - specific ultraviolet absorption;  
 SVBA - spill resistant vacuum breaker assembly;  
 SWTR - surface water treatment rule;  
 T - disinfectant contact time in minutes;  
 TTHM - total trihalomethane;  
 TNC - transient **noncommunity**;  
 TNTC - too numerous to count;  
 TOC - total organic carbon;  
 UBC - Uniform Building Code;  
 ug/L - micrograms per liter;  
 UL - Underwriters Laboratories, Inc.;  
 umhos/cm - micromhos per centimeter;  
 UPC - Uniform Plumbing Code;  
 UTC - utilities and transportation commission;  
 VOC - volatile organic chemical;  
 WAC - Washington Administrative Code;  
 WFI - water facilities inventory and report form; and  
 WHPA - wellhead protection area.

"Acute" means posing an immediate risk to human health.

"Alternate filtration technology" means a filtration process for substantial removal of particulates (generally > 2 log *Giardia lamblia* cysts and ≥ 2-log removal of *Cryptosporidium* oocysts) by other than conventional, direct, diatomaceous earth, or slow sand filtration processes.

"Analogous treatment system" means an existing water treatment system that has unit processes and source water quality characteristics that are similar to a proposed treatment system.

"Approved air gap" means a physical separation between the free-flowing end of a potable water supply pipeline and the

overflow rim of an open or nonpressurized receiving vessel. To be an air gap approved by the department, the separation must be at least:

Twice the diameter of the supply piping measured vertically from the overflow rim of the receiving vessel, and in no case be less than one inch, when unaffected by vertical surfaces (sidewalls); and:

Three times the diameter of the supply piping, if the horizontal distance between the supply pipe and a vertical surface (sidewall) is less than or equal to three times the diameter of the supply pipe, or if the horizontal distance between the supply pipe and intersecting vertical surfaces (sidewalls) is less than or equal to four times the diameter of the supply pipe and in no case less than one and one-half inches.

**"Approved atmospheric vacuum breaker"** means an AVB of make, model, and size that is approved by the department. AVBs that appear on the current approved backflow prevention assemblies list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research or that are listed or approved by other nationally recognized testing agencies (such as IAPMO, ANSI, or UL) acceptable to the local administrative authority are considered approved by the department.

**"Approved backflow preventer"** means an approved air gap, an approved backflow prevention assembly, or an approved AVB. The terms "approved backflow preventer," "approved air gap," or "approved backflow prevention assembly" refer only to those approved backflow preventers relied upon by the purveyor for the protection of the public water system. The requirements of WAC 246-290-490 do not apply to backflow preventers installed for other purposes.

**"Approved backflow prevention assembly"** means an RPBA, RPDA, DCVA, DCDA, PVBA, or SVBA of make, model, and size that is approved by the department. Assemblies that appear on the current approved backflow prevention assemblies list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research or other entity acceptable to the department are considered approved by the department.

**"As-built drawing"** means the drawing created by an engineer from the collection of the original design plans, including changes made to the design or to the system, that reflects the actual constructed condition of the water system.

**"Authorized agent"** means any person who:

Makes decisions regarding the operation and management of a public water system whether or not he or she is engaged in the physical operation of the system;

Makes decisions whether to improve, expand, purchase, or sell the system; or

Has discretion over the finances of the system.

**"Authorized consumption"** means the volume of metered and unmetered water used by consumers, the purveyor, and others authorized to do so by the purveyor, including, but not limited to, fire fighting and training, flushing of mains and sewers, street

cleaning, and watering of parks and landscapes. These volumes may be billed or unbilled.

**"Average day demand (ADD)"** means the total quantity of water use from all sources of supply as measured or estimated over a calendar year divided by three hundred sixty-five. ADD is typically expressed as gallons per day per ERU (gpd/ERU).

**"Backflow"** means the undesirable reversal of flow of water or other substances through a cross-connection into the public water system or consumer's potable water system.

**"Backflow assembly tester"** means a person holding a valid BAT certificate issued in accordance with chapter 246-292 WAC.

**"Backpressure"** means a pressure (caused by a pump, elevated tank or piping, boiler, or other means) on the consumer's side of the service connection that is greater than the pressure provided by the public water system and which may cause backflow.

**"Backsiphonage"** means backflow due to a reduction in system pressure in the purveyor's distribution system and/or consumer's water system.

**"Best available technology (BAT)"** means the best technology, treatment techniques, or other means that EPA finds, after examination for efficacy under field conditions, are available, taking cost into consideration.

**"Blended sample"** means a sample collected from two or more individual sources at a point downstream of the confluence of the individual sources and prior to the first connection.

**"C"** means the residual disinfectant concentration in mg/L at a point before or at the first consumer.

**"Category red operating permit"** means an operating permit identified ((as—such)) under chapter 246-294 WAC. Placement in this category results in permit issuance with conditions and a determination that the system is inadequate.

**"Chemical contaminant treatment facility"** means a treatment facility specifically used for the purpose of removing chemical contaminants.

**"Clarification"** means a treatment process that uses gravity (sedimentation) or dissolved air (flotation) to remove flocculated particles.

**"Closed system"** means any water system or portion of a water system in which water is transferred to a higher pressure zone closed to the atmosphere, such as when no gravity storage is present.

**"Coagulant"** means a chemical used in water treatment to destabilize particulates and accelerate the rate at which they aggregate into larger particles.

**"Coagulation"** means a process using coagulant chemicals and rapid mixing to destabilize colloidal and suspended particles and agglomerate them into flocs.

**"Combination fire protection system"** means a fire sprinkler system that:

Is supplied only by the purveyor's water;

Does not have a fire department pumper connection; and

Is constructed of approved potable water piping and materials

that serve both the fire sprinkler system and the consumer's potable water system.

**"Completely treated water"** means water from a surface or GWI source that receives filtration or disinfection treatment that fully complies with the treatment technique requirements of Part 6 of this chapter as determined by the department.

**"Composite sample"** means a sample in which more than one source is sampled individually by the water system and then composited by a certified laboratory by mixing equal parts of water from each source (up to five different sources) and then analyzed as a single sample.

**"Comprehensive monitoring plan"** means a schedule that describes both the frequency and appropriate locations for sampling of drinking water contaminants as required by state and federal rules.

**"Comprehensive performance evaluation (CPE)"** means a thorough review and analysis of a treatment plant's performance-based capabilities and associated administrative, operation and maintenance practices. It is conducted to identify factors that may be adversely impacting a plant's capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements. The comprehensive performance evaluation must consist of at least the following components: Assessment of plant performance; evaluation of major unit processes; identification and prioritization of performance limiting factors; assessment of the applicability of comprehensive technical assistance; and preparation of a CPE report.

**"Comprehensive technical assistance (CTA)"** means technical assistance intended to identify specific steps that may help a water treatment plant overcome operational or design limitations identified during a comprehensive performance evaluation.

**"Confirmation"** means to demonstrate the accuracy of results of a sample by analyzing another sample from the same location within a reasonable period of time, generally not to exceed two weeks. Confirmation is when analysis results fall within plus or minus thirty percent of the original sample results.

**"Confluent growth"** means a continuous bacterial growth covering a portion or the entire filtration area of a membrane filter in which bacterial colonies are not discrete.

~~((**"Conservation program"** means policies and activities implemented to encourage or cause efficient use of water on a long-term basis. Conservation programs shall include identification of the conservation objectives of the purveyor, evaluation of conservation measures considered, and identification of specific conservation measures identified for implementation.))~~

**"Construction completion report"** means a form provided by the department and completed for each specific construction project to document:

- Project construction in accordance with this chapter and general standards of engineering practice;
- Physical capacity changes; and
- Satisfactory test results.

The completed form must be stamped with an engineer's seal, and signed and dated by a professional engineer.

**"Consumer"** means any person receiving water from a public water system from either the meter, or the point where the service line connects with the distribution system if no meter is present. For purposes of cross-connection control, "consumer" means the owner or operator of a water system connected to a public water system through a service connection.

**"Consumer's water system,"** as used in WAC 246-290-490, means any potable and/or industrial water system that begins at the point of delivery from the public water system and is located on the consumer's premises. The consumer's water system includes all auxiliary sources of supply, storage, treatment, and distribution facilities, piping, plumbing, and fixtures under the control of the consumer.

**"Contaminant"** means a substance present in drinking water that may adversely affect the health of the consumer or the aesthetic qualities of the water.

**"Contingency plan"** means that portion of the wellhead protection program section of the water system plan or small water system management program that addresses the replacement of the major well(s) or wellfield in the event of loss due to ground water contamination.

**"Continuous monitoring"** means determining water quality with automatic recording analyzers that operate without interruption twenty-four hours per day.

**"Conventional filtration treatment"** means a series of processes including coagulation, flocculation, clarification, and filtration that together result in substantial particulate removal in compliance with Part 6 of this chapter.

**"Cost-effective"** means the present value of benefits exceed the present value of costs.

**"Critical water supply service area (CWSSA)"** means a geographical area which is characterized by a proliferation of small, inadequate water systems, or by water supply problems which threaten the present or future water quality or reliability of service in ((such)) a manner that efficient and orderly development may best be achieved through coordinated planning by the water utilities in the area.

**"Cross-connection"** means any actual or potential physical connection between a public water system or the consumer's water system and any source of nonpotable liquid, solid, or gas that could contaminate the potable water supply by backflow.

**"Cross-connection control program"** means the administrative and technical procedures the purveyor implements to protect the public water system from contamination via cross-connections as required in WAC 246-290-490.

**"Cross-connection control specialist"** means a person holding a valid CCS certificate issued in accordance with chapter 246-292 WAC.

**"Cross-connection control summary report"** means the annual report that describes the status of the purveyor's cross-connection

control program.

"CT" or "CTcalc" means the product of "residual disinfectant concentration" (C) and the corresponding "disinfectant contact time" (T) i.e., "C" x "T."

"CT<sub>99.9</sub>" means the CT value required for 99.9 percent (3 log) inactivation of *Giardia lamblia* cysts.

"CTreq" means the CT value a system shall provide to achieve a specific percent inactivation of *Giardia lamblia* cysts or other pathogenic organisms of health concern as directed by the department.

"Curtailment" means short-term, infrequent actions by a purveyor and its consumers to reduce their water use during or in anticipation of a water shortage.

"Dead storage" means the volume of stored water not available to all consumers at the minimum design pressure in accordance with WAC 246-290-230 (5) and (6).

"Demand forecast" means an estimate of future water system water supply needs assuming historically normal weather conditions and calculated using numerous parameters, including population, historic water use, local land use plans, water rates and their impacts on consumption, employment, projected ((conservation)) water use efficiency savings from implementation of a ((conservation)) water use efficiency program, and other appropriate factors.

"Department" means the Washington state department of health or health officer as identified in a joint plan of operation in accordance with WAC 246-290-030(1).

"Design and construction standards" means department design guidance and other peer reviewed documents generally accepted by the engineering profession as containing fundamental criteria for design and construction of water facility projects. Design and construction standards are comprised of performance and sizing criteria and reference general construction materials and methods.

"Diatomaceous earth filtration" means a filtration process for substantial removal of particulates (> 2 log *Giardia lamblia* cysts) in which:

A precoat cake of graded diatomaceous earth filter media is deposited on a support membrane (septum); and

Water is passed through the cake on the septum while additional filter media, known as body feed, is continuously added to the feed water to maintain the permeability of the filter cake.

"Direct filtration" means a series of processes including coagulation, flocculation, and filtration (but excluding sedimentation) that together result in substantial particulate removal in compliance with Part 6 of this chapter.

"Direct service connection" means a service hookup to a property that is contiguous to a water distribution main and where additional distribution mains or extensions are not needed to provide service.

"Disinfectant contact time (T in CT)" means: When measuring the first or only C, the time in minutes it takes water to move from the point of disinfectant application to a point where the C



is measured; and

For subsequent measurements of C, the time in minutes it takes water to move from one C measurement point to the C measurement point for which the particular T is being calculated.

**"Disinfection"** means the use of chlorine or other agent or process the department approves for killing or inactivating microbiological organisms, including pathogenic and indicator organisms.

**"Disinfection profile"** means a summary of *Giardia lamblia* inactivation through a surface water treatment plant.

**"Distribution coliform sample"** means a sample of water collected from a representative location in the distribution system at or after the first service and analyzed for coliform presence in compliance with this chapter.

**"Distribution-related projects"** means distribution projects such as storage tanks, booster pump facilities, transmission mains, pipe linings, and tank coating. It does not mean source of supply (including interties) or water quality treatment projects.

**"Distribution reservoir"** means a water storage structure that is integrated with a water system's distribution network to provide for variable system demands including, but not limited to, daily equalizing storage, standby storage, or fire reserves, or to provide for disinfectant contact time.

**"Distribution system"** means all piping components of a public water system that serve to convey water from transmission mains linked to source, storage and treatment facilities to the consumer excluding individual services.

**"Domestic or other nondistribution system plumbing problem,"** means contamination of a system having more than one service connection with the contamination limited to the specific service connection from which the sample was taken.

**"Drinking water state revolving fund (DWSRF)"** means the revolving loan program financed by the state and federal governments and managed by the state for the purpose of assisting water systems to meet their capital needs associated with complying with the federal Safe Drinking Water Act.

**"Duplicate (verification) sample"** means a second sample collected at the same time and location as the first sample and used for verification.

**"Elected governing board"** means the elected officials with ultimate legal responsibility for operational, technical, managerial, and financial decisions for a public water system.

**"Emergency"** means an unforeseen event that causes damage or disrupts normal operations and requires immediate action to protect public health and safety.

**"Emergency source"** means any source that is approved by the department for emergency purposes only, is not used for routine or seasonal water demands, is physically disconnected, and is identified in the purveyor's emergency response plan.

**"Engineering design review report"** means a form provided by the department and completed for a specific distribution-related project to document:

• Engineering review of a project report and/or construction documents under the submittal exception process in accordance with WAC 246-290-125(3); and

• Design in accordance with this chapter and general standards of engineering practice.

The completed form must be stamped with engineer's seal, and signed and dated by a professional engineer.

**"Equalizing storage"** means the volume of storage needed to supplement supply to consumers when the peak hourly demand exceeds the total source pumping capacity.

**"Equivalent residential unit (ERU)"** means a system-specific unit of measure used to express the amount of water consumed by a typical full-time single family residence.

**"Expanding public water system"** means a public water system installing additions, extensions, changes, or alterations to their existing source, transmission, storage, or distribution facilities that will enable the system to increase in size its existing service area and/or its number of approved service connections. Exceptions:

A system that connects new approved individual retail or direct service connections onto an existing distribution system within an existing service area; or

A distribution system extension in an existing service area identified in a current and approved water system plan or project report.

**"Filter profile"** means a graphical representation of individual filter performance in a direct or conventional surface water filtration plant, based on continuous turbidity measurements or total particle counts versus time for an entire filter run, from startup to backwash inclusively, that includes an assessment of filter performance while another filter is being backwashed.

**"Exported water"** means volumes of water produced or purchased by a public water system that enters the transmission mains or distribution system and then is delivered to a different public water system.

**"Filtration"** means a process for removal of particulate matter from water by passage through porous media.

**"Financial viability"** means the capability of a water system to obtain sufficient funds to construct, operate, maintain, and manage a public water system, on a continuing basis, in full compliance with federal, state, and local requirements.

**"Fire flow"** means the maximum rate and duration of water flow needed to suppress a fire under WAC 246-293-640 or as required under local fire protection authority standards.

**"Fire suppression storage"** means the volume of stored water available during fire suppression activities to satisfy minimum pressure requirements per WAC 246-290-230.

**"First consumer"** means the first service connection associated with any source (i.e., the point where water is first withdrawn for human consumption, excluding connections where water is delivered to another water system covered by these regulations).

**"Flocculation"** means a process enhancing agglomeration and

collection of colloidal and suspended particles into larger, more easily settleable or filterable particles by gentle stirring.

**"Flow-through fire protection system"** means a fire sprinkler system that:

Is supplied only by the purveyor's water;

Does not have a fire department pumper connection;

Is constructed of approved potable water piping and materials to which sprinkler heads are attached; and

Terminates at a connection to a toilet or other plumbing fixture to prevent the water from becoming stagnant.

**"Forecasted demand characteristics"** means the factors that may affect a public water system's projected water needs.

**"Governing body"** means the individual or group of individuals with ultimate legal responsibility for operational, technical, managerial, and financial decisions for a public water system.

**"Grab sample"** means a water quality sample collected at a specific instant in time and analyzed as an individual sample.

**"Ground water under the direct influence of surface water (GWI)"** means any water beneath the surface of the ground that the department determines has the following characteristics:

Significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as *Giardia lamblia* or, *Cryptosporidium*; or

Significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH closely correlating to climatological or surface water conditions where natural conditions cannot prevent the introduction of surface water pathogens into the source at the system's point of withdrawal.

**"Guideline"** means a department document assisting the purveyor in meeting a rule requirement.

**"Health officer"** means the health officer of the city, county, city-county health department or district, or an authorized representative.

**"Heterotrophic Plate Count (HPC)"** means a procedure to measure a class of bacteria that use organic nutrients for growth. The density of these bacteria in drinking water is measured as colony forming units per milliliter and is referred to as the HPC.

**"High health cross-connection hazard"** means a cross-connection which could impair the quality of potable water and create an actual public health hazard through poisoning or spread of disease by sewage, industrial liquids or waste.

**"Human consumption"** means the use of water for drinking, bathing or showering, hand washing, food preparation, cooking, or oral hygiene.

**"Hydraulic analysis"** means the study of a water system's distribution main and storage network to determine present or future adequacy for provision of service to consumers within the established design parameters for the system under peak flow conditions, including fire flow. The analysis is used to establish any need for improvements to existing systems or to substantiate adequacy of design for distribution system components such as

pipings, elevated storage, booster stations or similar facilities used to pump and convey water to consumers.

**"Inactivation"** means a process which renders pathogenic microorganisms incapable of producing disease.

**"Inactivation ratio"** means the ratio obtained by dividing  $CT_{calc}$  by  $CT_{req}$ .

**"Incompletely treated water"** means water from a surface or GWI source that receives filtration and/or disinfection treatment that does not fully comply with the treatment technique requirements of Part 6 of this chapter as determined by the department.

**"In-line filtration"** means a series of processes, including coagulation and filtration (but excluding flocculation and sedimentation) that together result in particulate removal.

**"In-premises protection"** means a method of protecting the health of consumers served by the consumer's potable water system, located within the property lines of the consumer's premises by the installation of an approved air gap or backflow prevention assembly at the point of hazard, which is generally a plumbing fixture.

**"Intertie"** means an interconnection between public water systems permitting the exchange or delivery of water between those systems.

**"Legionella"** means a genus of bacteria containing species which cause a type of pneumonia called Legionnaires' Disease.

**"Limited alternative to filtration"** means a process that ensures greater removal and/or inactivation efficiencies of pathogenic organisms than would be achieved by the combination of filtration and chlorine disinfection.

**"Local administrative authority"** means the local official, board, department, or agency authorized to administer and enforce the provisions of the Uniform Plumbing Code as adopted under chapter 19.27 RCW.

**"Low health cross-connection hazard"** means a cross-connection that could cause an impairment of the quality of potable water to a degree that does not create a hazard to the public health, but does adversely and unreasonably affect the aesthetic qualities of ((such)) potable waters for domestic use.

**"Major project"** means all construction projects subject to SEPA in accordance with WAC 246-03-030 (3)(a) and include all surface water source development, all water system storage facilities greater than one-half million gallons, new transmission lines longer than one thousand feet and larger than eight inches in diameter located in new rights of way and major extensions to existing water distribution systems involving use of pipes greater than eight inches in diameter, that are designed to increase the existing service area by more than one square mile.

**"Mandatory curtailment"** means curtailment required by a public water system of specified water uses and consumer classes for a specified period of time.

**"Marginal costs"** means the change in costs incurred by producing the next increment of supply.

**"Maximum contaminant level (MCL)"** means the maximum permissible level of a contaminant in water the purveyor delivers

to any public water system user, measured at the locations identified under WAC 246-290-300, Table 3.

"Maximum contaminant level violation" means a confirmed measurement above the MCL and for a duration of time, where applicable, as outlined under WAC 246-290-310.

"Maximum day demand (MDD)" means the highest actual or estimated quantity of water that is, or is expected to be, used over a twenty-four hour period, excluding unusual events or emergencies. MDD is typically expressed as gallons per day per ERU (gpd/ERU).

"Monitoring waiver" means an action taken by the department under WAC 246-290-300 (4)(g) or (7)(f) to allow a water system to reduce specific monitoring requirements based on a determination of low source vulnerability to contamination.

"Municipal water supplier" means an entity that supplies water for municipal water supply purposes.

"Municipal water supply purposes" means a beneficial use of water:

(a) For residential purposes through fifteen or more residential service connections or for providing residential use of water for a nonresidential population that is, on average, at least twenty-five people for at least sixty days a year;

(b) For governmental or governmental proprietary purposes by a city, town, public utility, district, county, sewer district, or water district; or

(c) Indirectly for the purposes in (a) or (b) of this definition through the delivery of treated or raw water to a public water system for such use.

(i) If water is beneficially used under a water right for the purposes listed in (a), (b), or (c) of this definition, any other beneficial use of water under the right generally associated with the use of water within a municipality is also for "municipal water supply purposes," including, but not limited to, beneficial use for commercial, industrial, irrigation of parks and open spaces, institutional, landscaping, fire flow, water system maintenance and repair, or related purposes; and

(ii) If a governmental entity holds a water right that is for the purposes listed in (a), (b), or (c) of this definition, its use of water or its delivery of water for any other beneficial use generally associated with the use of water within a municipality is also for "municipal water supply purposes," including, but not limited to, beneficial use for commercial, industrial, irrigation of parks and open spaces, institutional, landscaping, fire flow, water system maintenance and repair, or related purposes.

"Nested storage" means one component of storage is contained within the component of another.

"Nonacute" means posing a possible or less than immediate risk to human health.

"Nonresident" means a person having access to drinking water from a public water system, but who lives elsewhere. Examples include travelers, transients, employees, students, etc.

"Normal operating conditions" means those conditions

associated with the designed, day-to-day provision of potable drinking water that meets regulatory water quality standards and the routine service expectations of the system's consumers at all times, including meeting fire flow demands. Operation under conditions such as power outages, floods, or unscheduled transmission or distribution disruptions, even if considered in the system design, are considered abnormal.

**"Operational storage"** means the volume of distribution storage associated with source or booster pump normal cycling times under normal operating conditions and is additive to the equalizing and standby storage components, and to fire flow storage if this storage component exists for any given tank.

**"Peak hourly demand (PHD)"** means the maximum rate of water use, excluding fire flow, that can be expected to occur within a defined service area over a continuous sixty minute time period. PHD is typically expressed in gallons per minute (gpm).

**"Peak hourly flow"** means, for the purpose of CT calculations, the greatest volume of water passing through the system during any one hour in a day.

**"Performance criteria"** means the level at which a system shall operate in order to maintain system reliability compliance, in accordance with WAC 246-290-420, and to meet consumers' reasonable expectations.

**"Permanent residence"** means any dwelling that is, or could reasonably be expected to be, occupied on a continuous basis.

**"Permanent source"** means a public water system supply source that is used regularly each year, and based on expected operational requirements of the system, will be used more than three consecutive months in any twelve-month period. For seasonal water systems that are in operation for less than three consecutive months per year, their sources shall also be considered to be permanent.

**"Point of disinfectant application"** means the point where the disinfectant is added, and where water downstream of that point is not subject to contamination by untreated surface water.

**"Population served"** means the number of persons, resident and nonresident, having immediate access to drinking water from a public water system, whether or not ((such)) persons have actually consumed water from that system. The number of nonresidents shall be the average number of persons having immediate access to drinking water on days access was provided during that month. In the absence of specific population data, the number of residents shall be computed by multiplying the number of active services by two and one-half.

**"Potable"** means water suitable for drinking by the public.

**"Potential GWI"** means a source identified by the department as possibly under the influence of surface water, and includes, but is not limited to, all wells with a screened interval fifty feet or less from the ground surface at the wellhead and located within two hundred feet of a surface water, and all Ranney wells, infiltration galleries, and springs.

**"Premises isolation"** means a method of protecting a public

water system by installation of approved air gaps or approved backflow prevention assemblies at or near the service connection or alternative location acceptable to the purveyor to isolate the consumer's water system from the purveyor's distribution system.

**"Pressure filter"** means an enclosed vessel containing properly sized and graded granular media through which water is forced under greater than atmospheric pressure.

**"Primary disinfection"** means a treatment process for achieving inactivation of *Giardia lamblia* cysts, viruses, or other pathogenic organisms of public health concern to comply with the treatment technique requirements of Part 6 of this chapter.

**"Primary standards"** means standards based on chronic, nonacute, or acute human health effects.

**"Primary turbidity standard"** means an accurately prepared formazin solution or commercially prepared polymer solution of known turbidity (prepared in accordance with "standard methods") that is used to calibrate bench model and continuous turbidimeters (instruments used to measure turbidity).

**"Project approval application (PAA)"** means a department form documenting ownership of water system, design engineer for the project, and type of project.

**"Protected ground water source"** means a ground water source the purveyor shows to the department's satisfaction as protected from potential sources of contamination on the basis of hydrogeologic data and/or satisfactory water quality history.

**"Public forum"** means a meeting open to the general public that allows for their participation.

**"Public water system"** is defined and referenced under WAC 246-290-020.

**"Purchased source"** means water a purveyor purchases from a public water system not under the control of the purveyor for distribution to the purveyor's consumers.

**"Purveyor"** means an agency, subdivision of the state, municipal corporation, firm, company, mutual or cooperative association, institution, partnership, or person or other entity owning or operating a public water system. Purveyor also means the authorized agents of ((such)) these entities.

**"Reclaimed water"** means effluent derived in any part from sewage from a wastewater treatment system that has been adequately and reliably treated, so that as a result of that treatment, it is suitable for beneficial use or a controlled use that would not otherwise occur, and it is no longer considered wastewater.

**"Record drawings"** means the drawings bearing the seal and signature of a professional engineer that reflect the modifications made to construction documents, documenting actual constructed conditions of the water system facilities.

**"Recreational tract"** means an area that is clearly defined for each occupant, but has no permanent structures with internal plumbing, and the area has been declared ((as—such)) in the covenants or on the recorded plat in order to be eligible for reduced design considerations.

**"Regional public water supplier"** means a water system that

provides drinking water to one, or more, other public water systems.

**"Regularly"** means four hours or more per day for four days or more per week.

**"Removal credit"** means the level (expressed as a percent or log) of *Giardia* and virus removal the department grants a system's filtration process.

**"Repeat sample"** means a sample collected to confirm the results of a previous analysis.

**"Resident"** means an individual living in a dwelling unit served by a public water system.

**"Residual disinfectant concentration"** means the analytical level of a disinfectant, measured in milligrams per liter, that remains in water following the application (dosing) of the disinfectant after some period of contact time.

**"Same farm"** means a parcel of land or series of parcels that are connected by covenants and devoted to the production of livestock or agricultural commodities for commercial purposes and does not qualify as a **Group A** public water system.

**"Sanitary survey"** means a review, inspection, and assessment of a public water system by the department or department designee including, but not limited to: Source, facilities, equipment, administration and operation, maintenance procedures, monitoring, recordkeeping, planning documents and schedules, and management practices. The purpose of the survey is to evaluate the adequacy of the water system for producing and distributing safe and adequate drinking water.

**"Satellite management agency (SMA)"** means a person or entity that is approved by the department to own or operate public water systems on a regional or county-wide basis without the necessity for a physical connection between ((such)) the systems.

**"Seasonal source"** means a public water system source used on a regular basis, that is not a permanent or emergency source.

**"Secondary standards"** means standards based on factors other than health effects.

**"Service connection"** means a connection to a public water system designed to provide potable water to a single family residence, or other residential or nonresidential population. When the connection provides water to a residential population without clearly defined single family residences, the following formulas shall be used in determining the number of services to be included as residential connections on the WFI form:

Divide the average population served each day by two and one-half; or

Using actual water use data, calculate the total ERUs represented by the service connection in accordance with department design guidance.

In no case shall the calculated number of services be less than one.

**"Significant noncomplier"** means a system that is violating or has violated department rules, and the violations may create, or have created an imminent or a significant risk to human health.



((Such)) The violations include, but are not limited to, repeated violations of monitoring requirements, failure to address an exceedance of permissible levels of regulated contaminants, or failure to comply with treatment technique standards or requirements.

**"Simple disinfection"** means any form of disinfection that requires minimal operational control in order to maintain the disinfection at proper functional levels, and that does not pose safety concerns that would require special care, equipment, or expertise. Examples include hypochlorination, UV-light, contactor chlorination, or any other form of disinfection practice that is safe to use and easy to routinely operate and maintain.

**"Slow sand filtration"** means a process involving passage of source water through a bed of sand at low velocity (generally less than 0.10 gpm/ft<sup>2</sup>) that results in substantial particulate removal (> 2 log *Giardia lamblia* cysts) by physical and biological mechanisms.

**"Societal perspective"** means a point of view that includes a broad spectrum of public benefits, including, but not limited to, enhanced system reliability; savings that result from delaying, deferring, or minimizing capital costs; and environmental benefits such as increased water in streams, improvements in aquifer recharge and other environmental factors.

**"Source meter"** means a meter that measures total output of a water source over specific time periods.

**"Source water"** means untreated water that is not subject to recontamination by surface runoff and:

For unfiltered systems, enters the system immediately before the first point of disinfectant application; and

For filtered systems, enters immediately before the first treatment unit of a water treatment facility.

**"Special purpose investigation (SPI)"** means on-site inspection of a public water system by the department or designee to address a potential public health concern, regulatory violation, or consumer complaint.

**"Special purpose sample"** means a sample collected for reasons other than the monitoring compliance specified in this chapter.

**"Spring"** means a source of water where an aquifer comes in contact with the ground surface.

**"Standard methods"** means the 18th edition of the book, titled *Standard Methods for the Examination of Water and Waste Water*, jointly published by the American Public Health Association, American Water Works Association (AWWA), and Water Pollution Control Federation. This book is available through public libraries or may be ordered from AWWA, 6666 West Quincy Avenue, Denver, Colorado 80235.

**"Standby storage"** means the volume of stored water available for use during a loss of source capacity, power, or similar short-term emergency.

**"State advisory level (SAL)"** means a level established by the department and state board of health for a contaminant without an existing MCL. The SAL represents a level that when exceeded,

indicates the need for further assessment to determine if the chemical is an actual or potential threat to human health.

"State board of health" and "board" means the board created by RCW 43.20.030.

"Subpart H System" see definition for "surface water system."

"Surface water" means a body of water open to the atmosphere and subject to surface runoff.

"Surface water system" means a public water system that uses in whole, or in part, source water from a surface supply, or ground water under the direct influence of surface water (GWI) supply. This includes systems that operate surface water treatment facilities, and systems that purchase "completely treated water" (as defined in this subsection). A "surface water system" is also referred to as a "Subpart H System" in some federal regulatory language adopted by reference and the two terms are considered equivalent for the purposes of this chapter.

"Susceptibility assessment" means the completed Susceptibility Assessment Survey Form developed by the department to evaluate the hydrologic setting of the water source and assess its contribution to the source's overall susceptibility to contamination from surface activities.

"Synthetic organic chemical (SOC)" means a manufactured carbon-based chemical.

"System capacity" means the system's operational, technical, managerial, and financial capability to achieve and maintain compliance with all relevant local, state, and federal plans and regulations.

"System physical capacity" means the maximum number of service connections or equivalent residential units (ERUs) that the system can serve when considering the limitation of each system component such as source, treatment, storage, transmission, or distribution, individually and in combination with each other.

"Time-of-travel" means the time required for ground water to move through the water bearing zone from a specific point to a well.

"Too numerous to count (TNTC)" means the total number of bacterial colonies exceeds 200 on a 47-mm diameter membrane filter used for coliform detection.

"Tracer study" means a field study conducted to determine the disinfectant contact time, T, provided by a water system component, such as a clearwell or storage reservoir, used for *Giardia lamblia* cyst and virus inactivation. The study involves introducing a tracer chemical at the inlet of the contact basin and measuring the resulting outlet tracer concentration as a function of time.

"Transmission line" means pipes used to convey water from source, storage, or treatment facilities to points of distribution or distribution mains, and from source facilities to treatment or storage facilities. This also can include transmission mains connecting one section of distribution system to another section of distribution system as long as this transmission main is clearly defined ((as such)) on the plans and no service connections are allowed along the transmission main.

"Treatment technique requirement" means a department-established requirement for a public water system to provide treatment, such as filtration or disinfection, as defined by specific design, operating, and monitoring requirements. A "treatment technique requirement" is established in lieu of a primary MCL when monitoring for the contaminant is not economically or technologically feasible.

"Trihalomethane (THM)" means one of a family of organic compounds, named as derivatives of methane, where three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure. THMs may occur when chlorine, a halogen, is added to water containing organic material and are generally found in water samples as disinfection by-products.

"Turbidity event" means a single day or series of consecutive days, not to exceed fourteen, when one or more turbidity measurement each day exceeds 5 NTU.

"T10" means the time it takes ten percent of the water passing through a system contact tank intended for use in the inactivation of *Giardia lamblia* cysts, viruses, and other microorganisms of public health concern, as determined from a tracer study conducted at peak hourly flow or from published engineering reports or guidance documents for similarly configured tanks.

"Unapproved auxiliary water supply" means a water supply (other than the purveyor's water supply) on or available to the consumer's premises that is either not approved for human consumption by the health agency having jurisdiction or is not otherwise acceptable to the purveyor.

"Uncovered distribution reservoir" means a distribution reservoir that is open, without a suitable water-tight roof or cover, where the potable water supply is exposed to external contaminants, including but not limited to people, birds, animals, and insects and will undergo no further treatment except for residual disinfection.

"Uniform Plumbing Code" means the code adopted under RCW 19.27.031(4) and amended under chapter 51-46 WAC. This code establishes statewide minimum plumbing standards applicable within the property lines of the consumer's premises.

"Used water" means water which has left the control of the purveyor.

"Verification" means to demonstrate the results of a sample to be precise by analyzing a duplicate sample. Verification occurs when analysis results fall within plus or minus thirty percent of the original sample.

"Virus" means a virus of fecal origin which is infectious to humans and transmitted through water.

"Volatile organic chemical (VOC)" means a manufactured carbon-based chemical that vaporizes quickly at standard pressure and temperature.

"Voluntary curtailment" means a curtailment of water use requested, but not required of consumers.

"Waterborne disease outbreak" means the significant occurrence of acute infectious illness, epidemiologically associated with

drinking water from a public water system, as determined by the appropriate local health agency or the department.

"Water demand efficiency" means minimizing water use by the water system and its consumers through purveyor sponsored activities including, but not limited to, distributing water saving devices, providing rebates or incentives to promote water efficient technologies or by providing water audits to homes, businesses, or landscapes.

"Water facilities inventory (WFI) form" means the department form summarizing each public water system's characteristics.

"Water right" means a permit, claim, or other authorization, on record with or accepted by the department of ecology, authorizing the beneficial use of water in accordance with all applicable state laws.

"Water right assessment" means an evaluation of the legal ability of a water system to use water for existing or proposed usages in conformance with state water right laws. ((Such an)) The assessment may be done by a water system, a purveyor, the department of ecology, or any combination thereof.

"Watershed" means the region or area that:

Ultimately drains into a surface water source diverted for drinking water supply; and

Affects the physical, chemical, microbiological, and radiological quality of the source.

"Water shortage" means a situation during which the water supplies of a system cannot meet normal water demands for the system, including peak periods.

"Water shortage response plan" means a plan outlining policies and activities to be implemented to reduce water use on a short-term basis during or in anticipation of a water shortage.

"Water supply characteristics" means the factors related to a public water system's source of water supply that may affect its availability and suitability to provide for both short-term and long-term needs. Factors include, but are not limited to, source location, name of any body of water and water resource inventory area from which water is diverted or withdrawn, production capacity, the source's natural variability, the supplier's water rights for the source, and other legal demands on the source such as water rights for other uses, conditions established to protect species listed under the Endangered Species Act in 50 CFR 17.11; instream flow restrictions established under Title 173 WAC, and any conditions established by watershed plans approved under chapter 90.82 RCW and RCW 90.54.040(1) or salmon recovery plans under chapter 77.85 RCW.

"Water supply efficiency" means increasing a water system's transmission, storage and delivery potential through activities including, but not limited to, system-wide water audits, documenting authorized uses, conducting leak surveys and repairs on meters, lines, storage facilities, and valves.

"Water use efficiency" means increasing water supply efficiency and water demand efficiency to minimize water withdrawals and water use.

"Water use efficiency program" means policies and activities focusing on increasing water supply efficiency and water demand efficiency to minimize water withdrawals and water use.

"Well field" means a group of wells one purveyor owns or controls that:

Draw from the same aquifer or aquifers as determined by comparable inorganic chemical analysis and comparable static water level and top of the open interval elevations; and

Discharge water through a common pipe and the common pipe shall allow for collection of a single sample before the first distribution system connection.

"Wellhead protection area (WHPA)" means the portion of a well's, wellfield's or spring's zone of contribution defined as such using WHPA criteria established by the department.

"Zone of contribution" means the area surrounding a pumping well or spring that encompasses all areas or features that supply ground water recharge to the well or spring.

AMENDATORY SECTION (Amending WSR 03-08-037, filed 3/27/03, effective 4/27/03)

**WAC 246-290-100 Water system plan.** (1) The purpose of this section is to establish a uniform process for purveyors to:

(a) Demonstrate the system's operational, technical, managerial, and financial capability to achieve and maintain compliance with relevant local, state, and federal plans and regulations;

(b) Demonstrate how the system will address present and future needs in a manner consistent with other relevant plans and local, state, and federal laws, including applicable land use plans, watershed plans, and water resource management plans;

(c) Establish eligibility for funding under the drinking water state revolving fund (SRF).

(2) Purveyors of the following categories of community public water systems shall submit a water system plan for review and approval by the department:

(a) Systems having one thousand or more services;

(b) Systems required to develop water system plans under the Public Water System Coordination Act of 1977 (chapter 70.116 RCW);

(c) Any system experiencing problems related to planning, operation, and/or management as determined by the department;

(d) All new systems;

(e) Any expanding system; and

(f) Any system proposing to use the document submittal exception process in WAC 246-290-125.

(3) The purveyor shall work with the department and other parties to establish the level of detail for a water system plan. In general, the scope and detail of the plan will be related to

size, complexity, water supply characteristics, forecasted demand characteristics, past performance, and use of the water system. Project reports may be combined with a water system plan.

(4) In order to demonstrate system capacity, the water system plan shall address the following elements, as a minimum, for a period of at least twenty years into the future:

(a) Description of the water system, including:

(i) Ownership and management, including the current names, addresses, and telephone numbers of the owners, operators, and emergency contact persons for the system;

(ii) System history and background;

(iii) Related plans, such as coordinated water system plans, abbreviated coordinated water system plans, local land use plans, ground water management plans, and basin plans;

(iv) Service area map, characteristics, agreements, and policies; and

(v) Satellite management, if applicable.

(b) Basic planning data, including:

(i) Current population, service connections, water use, and equivalent residential units; and

(ii) Sufficient water production and consumption data to identify trends including the following elements:

(A) Monthly and annual production totals for each source, including water purchased from another public water system;

(B) Annual usage totals for each customer class as determined by the purveyor including exported water; and

(C) For systems serving one thousand or more total connections, a description of the seasonal variations in consumption patterns of each customer class defined by the purveyor.

(iii) Projected land use, future population, and water demand for a consecutive six-year and ((final)) twenty-year planning period within the system's service area.

(c) Water demand forecasts, developed under WAC 246-290-221, for a consecutive six-year and twenty-year planning period. These shall show future use with and without savings expected from the system's water use efficiency program and must consider the following:

(i) Population forecasts from the appropriate planning agency, or Washington office of financial management;

(ii) Water use trends based on actual water use records; and

(iii) Applicable land use plans, watershed plans, water resource management plans, and development regulations.

(d) For systems serving one thousand or more total connections, a demand forecast projecting demand if all measures deemed cost-effective per WAC 246-290-810 were implemented.

(e) System analysis, including:

(i) System design standards;

(ii) Water quality analysis;

(iii) System inventory description and analysis; and

(iv) Summary of system deficiencies.

~~((d))~~ (f) Water resource analysis, including:

(i) ((Development and implementation of a cost-effective

~~conservation program, which includes evaluation of conservation-oriented water rate structures,~~

~~(ii) Water demand forecasts;~~

~~(iii) Water use data collection;~~

~~(iv))~~ A water use efficiency program. Municipal water suppliers must meet the requirements in WAC 246-290-810;

(ii) Source of supply analysis, which includes:

(A) An evaluation of water supply alternatives if additional water rights will be pursued within twenty years; and

((+v)) (B) A narrative description of the system's water supply characteristics and the potential effect from current and future use on the water quantity and quality of any body of water from which its water is diverted or withdrawn;

(iii) Water shortage response plan if a water system experiences a water shortage, or anticipates it will experience a water shortage within the next six-year planning period;

((+vi)) (iv) Water right self assessment;

((+vii)) (v) Water supply reliability analysis; ((and

+viii)) (vi) Interties; and

(vii) For systems serving one thousand or more total connections, an evaluation of opportunities for the use of reclaimed water, where they exist, as defined in RCW 90.46.010(4).

((+e)) (g) Source water protection in accordance with WAC 246-290-135.

((+f)) (h) Operation and maintenance program in accordance with WAC 246-290-415 and 246-290-654(5), as applicable.

((+g)) (i) Improvement program, including a six-year capital improvement schedule.

((+h)) (j) Financial program, including demonstration of financial viability by providing:

(i) A summary of past income and expenses;

(ii) A one-year balanced operational budget for systems serving one thousand or more connections or a six-year balanced operational budget for systems serving less than one thousand connections;

(iii) A plan for collecting the revenue necessary to maintain cash flow stability and to fund the capital improvement program and emergency improvements; and

(iv) ((A rate structure)) An evaluation that has considered:

(A) The affordability of water rates; and

(B) The feasibility of adopting and implementing a rate structure that encourages water ((conservation)) demand efficiency.

((+i)) (k) Other documents, such as:

(i) Documentation of SEPA compliance;

(ii) Agreements; and

(iii) Comments from the county and adjacent utilities.

(5) Purveyors intending to implement the project report and construction document submittal exceptions authorized under WAC 246-290-125 must include:

(a) Standard construction specifications for distribution mains; and/or

(b) Design and construction standards for distribution-related projects, including:

(i) Description of project report and construction document internal review procedures, including engineering design review and construction completion reporting requirements;

(ii) Construction-related policies and requirements for external parties, including consumers and developers;

(iii) Performance and sizing criteria; and

(iv) General reference to construction materials and methods.

(6) The department, at its discretion, may require reports from purveyors identifying the progress in developing their water system plans.

(7) Purveyors shall transmit water system plans to adjacent utilities and local governments having jurisdiction, to assess consistency with ongoing and adopted planning efforts.

(8) For community systems, the purveyor shall hold an informational meeting for system consumers prior to departmental approval of a water system plan or a water system plan update. The purveyor shall notify consumers in a way that is appropriate to the size of the system.

(9) Department approval of a water system plan shall be in effect for six years from the date of written approval unless:

(a) Major projects subject to SEPA as defined in WAC 246-03-030 (3)(a) are proposed that are not addressed in the plan;

(b) Changes occur in the basic planning data significantly affecting system improvements identified; or

(c) The department requests an updated plan or plan amendment.

(10) The purveyor shall update the plan and submit it for approval at least every six years. If the system no longer meets the conditions of subsection (2) of this section, the purveyor shall as directed by the department, submit either a plan amendment the scope of which will be determined by the department, or a small water system management program under WAC 246-290-105.

AMENDATORY SECTION (Amending WSR 03-08-037, filed 3/27/03, effective 4/27/03)

**WAC 246-290-105 Small water system management program.** (1) The purpose of a small water system management program is to:

(a) Demonstrate the system's operational, technical, managerial, and financial capability to achieve and maintain compliance with all relevant local, state, and federal plans and regulations; and

(b) Establish eligibility for funding under the drinking water state revolving fund (SRF).

(2) All noncommunity and all community systems not required to complete a water system plan as described under WAC 246-290-100(2) shall develop and implement a small water system management program.

(3) The purveyor shall submit this program for review and



approval to the department when:

- (a) A new NTNC public water system is created; or
- (b) An existing system has operational, technical, managerial, or financial problems, as determined by the department.

(4) Content and detail shall be consistent with the size, complexity, past performance, and use of the public water system. General content topics shall include, but not be limited to, the following elements:

- (a) System management;
- (b) Annual operating permit;
- (c) Water facilities inventory form;
- (d) Service area and facility map;
- (e) ~~((Documentation of water rights, through a))~~ Water right self assessment;
- (f) ~~((Record of source water pumped,))~~ Description of the system's source(s) including the name and location of any body of water from which its water is diverted or withdrawn;
- (g) ~~((Water usage,~~
- (h) ~~Water conservation program,))~~ A water use efficiency program. Municipal water suppliers must meet the requirements in WAC 246-290-810;
- (h) Water production and consumption data including each of the following:
  - (i) Monthly and annual production for each source, including water purchased from another public water system;
  - (ii) Annual consumption totals for residential and nonresidential connections;
  - (iii) Total annual volume of exported water;
  - (i) Average daily demand;
  - (j) Current population served;
  - (k) The forecast of average daily demand based on the system's approved number of connections that considers:
    - (i) Water use trends based on actual water use records; and
    - (ii) Applicable land use plans, watershed plans, water resource management plans, and development regulations;
  - (l) An evaluation that has considered the feasibility of adopting and implementing a rate structure that encourages water demand efficiency;
- (m) Source protection;
- ~~((+j))~~ (n) Component inventory and assessment;
- ~~((+k))~~ (o) List of planned system improvements;
- ~~((+l))~~ (p) Water quality monitoring program;
- ~~((+m))~~ (q) Operation and maintenance program;
- ~~((+n))~~ (r) Cross-connection control program;
- ~~((+o))~~ (s) Emergency response plan; and
- ~~((+p))~~ (t) Budget.

(5) The department may require changes be made to a small water system management program if necessary to effectively accomplish the program's purpose.

AMENDATORY SECTION (Amending WSR 99-07-021; filed 3/9/99, effective 4/9/99)

**WAC 246-290-132 Interties.** (1) No interties shall be used and/or constructed as a public water supply without department approval.

(2) Interties shall not be eligible for submittal exceptions pursuant to WAC 246-290-125.

(3) Prior to department approval, purveyors proposing nonemergency interties shall ensure that the intertie is addressed:

(a) In an approved coordinated water system plan, water system plan, water system plan update, water system plan amendment, or small water system management program including:

(i) Location of the proposed intertie;  
(ii) Date it is proposed to be utilized;  
(iii) The purpose, physical capacity, service area, and proposed usage of the intertie;

(iv) Copy of the intertie agreement between purveyors;

(v) Description of how the intertie:

(A) Improves overall system reliability;

(B) Enhances the manageability of the system;

(C) Provides opportunities for conjunctive use; or

(D) Delays or avoids the need to develop new water sources;

(vi) Identification of any potential public health or safety concerns;

(vii) Discussion of any water quality and treatment issues;

(viii) Demonstration of the source capacity and hydraulic capacity of the supplying and receiving systems at the designed flow rate through the intertie;

(ix) Water right assessment;

(x) Identification of alternative sources that will be utilized when the intertie agreement expires if the water is not being provided in perpetuity; and

(xi) Identification and comparison of alternatives if any.

(b) In construction documents in accordance with WAC 246-290-120 including:

(i) Demonstration of the installation of a source meter to measure water exchanged; and

(ii) Water right assessment, if not previously provided to the department. Where RCW 90.03.383 requires a water right or water right change to be issued by the department of ecology, construction work on the intertie shall not begin, notwithstanding any prior approval of the intertie by the department in a water system plan, until the department of ecology issues the required water right document.

(4) Emergency use interties are interconnections between public water systems permitting the temporary exchange or delivery of water between those systems only in cases of emergency that result in permanent supplies being unavailable for use. Prior to department approval, purveyors proposing emergency use interties shall ensure that the emergency intertie is addressed:

(a) In an approved coordinated water system plan, water system

plan, water system plan update, water system plan amendment, or small water system management plan including:

- (i) Description of the intended use of the emergency intertie;
- (ii) Location of the proposed intertie;
- (iii) Date the intertie is intended to be operational;
- (iv) Copy of the intertie agreement between purveyors detailing the conditions and limitations of ((such)) the intertie; and
- (v) Hydraulic analysis conducted to identify the impacts upon each water system.

(b) In a project report in accordance with WAC 246-290-110 or in a construction document in accordance with WAC 246-290-120.

(5) Purveyors proposing interties shall apply to the department of ecology for water right changes as provided in RCW 90.03.383. Except as provided in RCW 90.03.383(7) and 90.03.390, no interties may be constructed without department of ecology action on the proposed change.

(6) The purveyor may be required to have emergency interties approved as nonemergency interties where ((such)) the interties are used frequently or on a long-term basis. If the department makes ((such)) a determination, the intertie will require approval in accordance with subsection (3) of this section.

(7) Intertie agreements between purveyors shall include:

(a) Identification of specific time periods in which water will be provided;

(b) Identification of the volume of water available for use, including any seasonal or other restrictions; and

(c) Identification of how water ((conservation)) use efficiency programs, data collection, water demand forecasting, and other operational matters will be coordinated.

AMENDATORY SECTION (Amending WSR 99-07-021, filed 3/9/99, effective 4/9/99)

**WAC 246-290-221 Water demand design criteria.** (1) Except as provided in this section, expanding systems shall use water demand design for average day demand (ADD), and peak periods of demand such as maximum day demand (MDD), and peak hourly demand (PHD) that are based upon actual metered water use records. The data collected shall be sufficient to account for seasonal or other cyclic changes in water demand, and shall correlate to the maximum number of full-time or part-time equivalent residential units in service at any time.

(2) For seasonally used, transitory noncommunity, or recreational developments the design for ADD, MDD, and PHD shall be based upon metered water uses whenever such data is available. The data must account for the daily population using the water over the time that records are collected, and must reflect the uses

associated with maximum occupancy for the development. The design demands for these developments apply only to part-time uses, and may not be applied to structures or dwellings that can be permanently occupied.

(3) In the absence of metered use or other comparable information, the following sources of design information may be used:

(a) Comparable metered water use data from analogous water systems. Analogous systems are those with similar characteristics, such as demographics, housing sizes, income levels, lot sizes, climate, water pricing structure, ((conservation)) water use efficiency practices, use restrictions, and soils and landscaping; or

(b) Design criteria or guidelines in the most recent edition of the department manual for design of Group A public water systems.

(4) The design for water systems based upon metered water use records shall have an MDD no lower than three hundred fifty gallons per day per equivalent residential unit (ERU), except for the design of any expansion to an existing water system that has a minimum of two years of meter records that clearly demonstrate that a lower design value for MDD may be used without significant risk of pressure loss. The meter records must correlate the demand data to the actual level of occupancy for the periods covered by the records.

(5) The minimum water demand and duration required for fire flow and/or fire suppression storage shall be determined by the local fire control authority, or chapter 246-293 WAC for systems within the boundaries of a designated critical water supply service area (CWSSA). Public water systems that are not required to comply with minimum fire flow standards shall coordinate with the local fire control authorities to ensure that any hydrants on the system, if they can possibly be used in the course of fire suppression activities, do not create adverse pressure problems within the water system as a result of fire control actions.

AMENDATORY SECTION (Amending WSR 99-07-021, filed 3/9/99, effective 4/9/99)

**WAC 246-290-420 Reliability and emergency response.** (1) All public water systems shall provide an adequate quantity and quality of water in a reliable manner at all times consistent with the requirements of this chapter.

(2) During normal operating conditions, for both average and peak demand periods, water pressure at the consumer's service meter, or property line if a meter is not used, shall be maintained at the approved design pressure, but in no case be less than 20 psi (140 kPa). Water quality shall be maintained as required in Part

4 and Part 6 of this chapter.

(3) When fire flow is required, 20 psi (140 kPa) at the operating hydrant and at least positive pressure shall be maintained throughout the system under fire flow conditions.

(4) The purveyor shall address abnormal operating conditions, such as those associated with fires, floods, unscheduled power outages, facility failures, and system maintenance, by using measures consistent with applicable regulations and industry standards to ensure the system is constructed, maintained, and operated to protect against the risk of contamination by cross-connections as a result of loss of system pressure.

(5) For operations during abnormal conditions, the purveyor shall establish the level of reliability, in accordance with consumer expectations, to ensure prevention of loss of pressure or prompt restoration of pressure when a loss of pressure has occurred. Consumer expectations may be established by a simple majority of the affected consumers within the system's service area, or within specific, definable pressure zones when different levels of service may be encountered. A simple majority of consumers can be associated with either a vote of the consumers for privately owned and operated systems, or of the system's governing body, such as council, board, or commission, for publicly governed systems. Consumer expectations shall not be used by a purveyor to justify a failure to address routine or repeated loss of pressure within the system, or within specific, definable pressure zones, because of the purveyor's failure to properly construct, maintain, or operate the system. The level of reliability established under this subsection, and measures for achieving such reliability, shall be identified in the operations and maintenance program and incorporated into the water system design, and shall be approved by the department. The level of reliability shall not affect the purveyor's obligations under subsections (1) through (4) of this section.

(6) The purveyor shall implement all appropriate measures necessary to meet the identified level of reliability for normal and abnormal operating conditions. Procedures for system operation during normal and abnormal operating conditions shall be documented in an operations and maintenance and emergency response program in accordance with WAC 246-290-415 and shall be implemented in a timely and reasonable manner.

(7) If a purveyor is unable to satisfactorily address departmental concerns or consumer complaints regarding the level of reliability associated with normal or abnormal operating conditions, the purveyor may be required to prepare a project report pursuant to WAC 246-290-110 that addresses an evaluation of the problem, impacts on affected consumers, and recommended corrective action. Unless the department determines that public health protection requires otherwise, improvements related to abnormal operating conditions described under subsection (5) of this section will be required commensurate with the established level of reliability for abnormal operating conditions.

(8) Restrictions on designed, or historically documented, normal water uses shall not be allowed except under the following

conditions:

(a) Whenever there is clear evidence that, unless limitations are imposed, water use at normal levels will lead to a relatively rapid depletion of water source reserves, such as in drought situations or when significant facility failures occur;

(b) Whenever a water system observes that demands for water exceed the available supply, as a result of such events as miscalculated planning, inattentive operation, or unforeseen problems with sources and that limitations would be necessary to insure basic levels of service while additional sources were being sought or developed, or the situation was being otherwise remedied; or

(c) Whenever the water system institutes restrictions as part of a water ((conservation)) use efficiency program which has been accepted by the system consumers through appropriate public decision-making processes within existing governance mechanisms, or has been mandated under state regulatory authority.

(9) A purveyor shall provide the department with the current names, addresses, and telephone numbers of the owners, operators, and emergency contact persons for the system, including any changes to this information. The purveyor shall also maintain twenty-four-hour phone availability and shall respond to consumer concerns and service complaints in a timely manner.

AMENDATORY SECTION (Amending WSR 04-04-056, filed 1/30/04, effective 3/1/04)

**WAC 246-290-480 Recordkeeping and reporting.** (1) Records. The purveyor shall keep the following records of operation and water quality analyses:

(a) Bacteriological and turbidity analysis results shall be kept for five years. Chemical analysis results shall be kept for as long as the system is in operation. Records of ((daily)) source meter readings shall be kept for ten years. Other records of operation and analyses required by the department shall be kept for three years. All records shall bear the signature of the operator in responsible charge of the water system or his or her representative. Systems shall keep these records available for inspection by the department and shall send the records to the department if requested. Actual laboratory reports may be kept or data may be transferred to tabular summaries, provided the following information is included:

(i) The date, place, and time of sampling, and the name of the person collecting the sample;

(ii) Identification of the sample type (routine distribution system sample, repeat sample, source or finished water sample, or other special purpose sample);

(iii) Date of analysis;

(iv) Laboratory and person responsible for performing analysis;

(v) The analytical method used; and

(vi) The results of the analysis.

(b) Records of action taken by the system to correct violations of primary drinking water standards. For each violation, records of actions taken to correct the violation, and copies of public notifications shall be kept for no less than three years after the last corrective action taken.

(c) Copies of any written reports, summaries, or communications relating to sanitary surveys or SPIs of the system conducted by system personnel, by a consultant or by any local, state, or federal agency, shall be kept for ten years after completion of the sanitary survey or SPI involved.

(d) Copies of project reports, construction documents and related drawings, inspection reports and approvals shall be kept for the life of the facility.

(e) Where applicable, ((daily)) records of the following shall be kept for a minimum of three years:

(i) Chlorine residual;

(ii) Fluoride level;

(iii) Water treatment plant performance including, but not limited to:

(A) Type of chemicals used and quantity;

(B) Amount of water treated; and

(C) Results of analyses.

(iv) Turbidity;

(v) Source meter readings; and

(vi) Other information as specified by the department.

(f) The purveyor shall retain copies of public notices made in accordance with Part 7, Subpart A of this chapter and certifications made to the department under 40 CFR 141.33(e) for a period of at least three years after issuance.

(g) Purveyors using conventional, direct, or in-line filtration that recycle spent filter backwash water, thickener supernatant, or liquids from dewatering processes within their treatment plant shall, beginning no later than June 8, 2004, collect and retain on file the following information for review and evaluation by the department:

(i) A copy of the recycle notification and information submitted to the department in accordance with WAC 246-290-660 (4)(a)(i).

(ii) A list of all recycle flows and the frequency with which they are returned.

(iii) Average and maximum backwash flow rate through the filters and the average and maximum duration of the filter backwash process in minutes.

(iv) Typical filter run length and a written summary of how filter run length is determined.

(v) The type of treatment provided for the recycle flow.

(vi) Data on the physical dimensions of the equalization and/or treatment units, typical and maximum hydraulic loading rates, type of treatment chemicals used and average dose and

frequency of use, and frequency at which solids are removed, if applicable.

(h) Purveyors required to conduct disinfection profiling and benchmarking in accordance with 40 CFR 141.530 through 141.544 shall retain the results on file indefinitely.

(2) Reporting.

(a) Unless otherwise specified in this chapter, the purveyor shall report to the department within forty-eight hours the failure to comply with any national primary drinking water regulation (including failure to comply with any monitoring requirements) as set forth in this chapter. For violations assigned to Tier 1 in WAC 246-290-71001, the department must be notified as soon as possible, but no later than twenty-four hours after the violation is known.

(b) The purveyor shall submit to the department reports required by this chapter, including tests, measurements, and analytic reports. Monthly reports are due before the tenth day of the following month, unless otherwise specified in this chapter.

(c) The purveyor shall submit to the department copies of any written summaries or communications relating to the status of monitoring waivers during each monitoring cycle or as directed by the department.

(d) Source meter readings shall be made available to the department.

(e) Water facilities inventory form (WFI).

(i) Purveyors of **community** and **NTNC** systems shall submit an annual WFI update to the department;

(ii) Purveyors of **TNC** systems shall submit an updated WFI to the department as requested;

(iii) Purveyors shall submit an updated WFI to the department within thirty days of any change in name, category, ownership, or responsibility for management of the water system, or addition of source or storage facilities; and

(iv) At a minimum the completed WFI shall provide the current names, addresses, and telephone numbers of the owners, operators, and emergency contact persons for the system.

~~((v) Purveyors shall provide in the WFI total annual water production and use, including:~~

~~(i) Total annual water production for each source;~~

~~(ii) Monthly and annual totals for water purchased from or sold to other purveyors; and~~

~~(iii) For purveyors with more than one thousand service connections, monthly and annual totals for purveyor consumer classes. Monthly data may be estimated if the water system bills less frequently than monthly.))~~

(f) Bacteriological.

~~((i))~~ The purveyor shall notify the department of the presence of:

~~((A))~~ (i) Coliform in a sample, within ten days of notification by the laboratory; and

~~((B))~~ (ii) Fecal coliform or E. coli in a sample, by the end of the business day in which the purveyor is notified by the



laboratory. If the purveyor is notified of the results after normal close of business, then the purveyor shall notify the department before the end of the next business day.

(g) Systems monitoring for unregulated contaminants in accordance with WAC 246-290-300(9), shall send a copy of the ~~((results of such))~~ monitoring results to the department within thirty days of receipt of analytical results.

(h) Systems monitoring for disinfection by-products in accordance with WAC 246-290-300(7) shall report information to the department as specified in 40 CFR 141.134.

(i) Systems monitoring for disinfectant residuals in accordance with WAC 246-290-300(7) shall report information to the department as specified in subsection (2)(a) of this section, and 40 CFR 141.134(c).

(j) Systems required to monitor for disinfection by-product precursor removal in accordance with WAC 246-290-300(7) shall report information to the department as specified in 40 CFR 141.134(d).

(k) Systems shall submit to the department, in accordance with 40 CFR 141.31(d), a certification that the system has complied with the public notification regulations (Part 7, Subpart A of this chapter) when a public notification is required. Along with the certification, the system shall submit a representative copy of each type of notice.

#### NEW SECTION

##### **WAC 246-290-496 Metering requirements. (1) Production:**

(a) The volume of water produced or purchased must be measured using a source meter or other meter installed upstream of the distribution system.

(b) The requirements of this section do not alter any source metering regulations adopted by either the department of health or the department of ecology.

(c) The requirements of this section do not apply to volumes of water delivered to a public water system through an emergency intetie.

##### **(2) Consumption:**

(a) The requirements of this section apply to public water systems that supply water for municipal water supply purposes.

(b) Except as provided in (g) of this subsection, the volume of water delivered to consumers must be measured by meters installed on all direct service connections.

(c) Meters must be installed on all existing direct service connections and clustered connections as provided in (g) of this subsection prior to July 1, 2016.

(d) Meters must be installed on all new direct service connections when the service connection is activated.

(e) Meters must be installed on all interties used as permanent or seasonal sources prior to July 1, 2016.

(f) If a system is not fully metered, the municipal water supplier shall complete the following:

(i) Develop a meter installation schedule consistent with this section.

(A) For systems serving one thousand or more total connections, submit the schedule to the department by July 1, 2008.

(B) For systems serving less than one thousand total connections, submit the schedule to the department by July 1, 2009.

(C) The schedule must include milestones demonstrating steady and continuous progress toward compliance with the requirements of this section.

(ii) Implement activities to ensure distribution system leakage is minimized (e.g., periodic leak detection and repair) until the system is fully metered.

(iii) Report the status of meter installation and all actions taken to minimize leakage in performance reports developed under WAC 246-290-840 and water use efficiency programs developed under WAC 246-290-810.

(g) Clustering multiple connections to be read with a single meter is allowed for the following types of connections:

(i) Campsites; and

(ii) A building with multiple units when the building is metered.

(3) Meters must be selected, installed, operated, calibrated, and maintained following generally accepted industry standards and information from the manufacturer.

## PART 8.

### WATER USE EFFICIENCY

#### NEW SECTION

WAC 246-290-800 Purpose and applicability. (1) The purpose of Part 8 is to:

(a) Define requirements for water use efficiency programs in water system plans developed under WAC 246-290-100 and small water systems management programs developed under WAC 246-290-105.

(b) Establish a water distribution system leakage standard.

(c) Define process requirements for water use efficiency goal setting.

(d) Establish water use efficiency performance reporting requirements.

(2) The requirements of Part 8 of this chapter apply to public water systems that supply water for municipal water supply purposes.

#### NEW SECTION

**WAC 246-290-810 Water use efficiency program.** (1) Water system plans and small water system management programs submitted for approval prior to December 31, 2007, must describe the existing water use efficiency program and continue existing levels of water use efficiency.

(2) Subsections (3) and (4) of this section apply to:

(a) Water system plans submitted to the department for approval under WAC 246-290-100 on December 31, 2007, or thereafter.

(b) Small water system management programs developed and implemented or submitted to the department for approval on December 31, 2007, or thereafter.

(3) Municipal water suppliers shall develop and implement a cost-effective water use efficiency program to meet water use efficiency goals developed under WAC 246-290-830.

(4) Municipal water suppliers shall complete the following items in the water use efficiency program:

(a) Describe the current water use efficiency program;

(b) For systems serving one thousand or more total connections, estimate the amount of water saved through implementation of the water use efficiency program over the last six years;

(c) Describe the chosen water use efficiency goals and confirm the goals were established in accordance with WAC 246-290-830;

(d) Evaluate water use efficiency measures to determine if they are cost-effective as follows:

(i) Evaluate or implement, at a minimum, the number of water use efficiency measures specified in Table 1 based on the system's total number of connections.

(ii) Evaluate or implement water use efficiency measures from the following categories of measures if they are applicable: Indoor residential, outdoor, and industrial/commercial/institutional.

(iii) For systems serving less than one thousand total connections, describe the evaluation process used to select water use efficiency measures.

(iv) For systems serving one thousand or more total connections, include the following criteria when evaluating water use efficiency measures:

(A) Quantitatively evaluate water use efficiency measures to determine if they are cost-effective from the system's perspective including the marginal costs of producing water.

(B) Address whether the water use efficiency measures are

cost-effective if the costs are shared with other entities.

(C) Quantitatively or qualitatively evaluate water use efficiency measures to determine if they are cost-effective from the societal perspective.

(e) Describe all water use efficiency measures to be implemented within the next six years including a schedule and a budget that demonstrates how the water use efficiency measures will be funded;

(f) Describe how consumers will be educated on water use efficiency practices;

(g) Estimate projected water savings from selected water use efficiency measures;

(h) Describe how the water use efficiency program will be evaluated for effectiveness;

(i) Evaluate water distribution system leakage as follows:

(i) Include distribution system leakage totals in accordance with WAC 246-290-820 for the past six years.

(ii) If necessary, include a copy of the water loss control action plan in accordance with WAC 246-290-820(4).

(iii) If all or portions of transmission mains are excluded when determining distribution system leakage, estimate the amount of leakage from the excluded portion of the transmission mains and describe how it is maintained to minimize leakage.

Table 1

Number of connections	Less than 500	500-999	1,000-2,499	2,500-9,999	10,000-49,999	50,000 or more
Water use efficiency measures	3	4	5	6	9	12

#### NEW SECTION

**WAC 246-290-820 Distribution system leakage standard.** (1) Municipal water suppliers shall determine distribution system leakage annually in accordance with subsection (2) of this section or an alternative methodology in accordance with subsection (3) of this section.

(a) Regional public water suppliers may include all or portions of their exported water when calculating distribution system leakage.

(i) If portions of exported water are not subtracted from the total water produced or purchased, then the authorized consumption for the public water system receiving exported water must be included.

(ii) Water use efficiency programs developed under WAC 246-290-810 and performance reports developed under WAC 246-290-840 must include leakage volumes for each individual public water

system included in the regional distribution system leakage calculation.

(b) The following distribution system leakage information shall be included in water use efficiency performance reports developed under WAC 246-290-840 and water use efficiency programs developed under WAC 246-290-810:

(i) Distribution system leakage totals calculated in accordance with subsection (2) of this section shall be recorded in annual percent and volume;

(ii) Distribution system leakage totals calculated in accordance with subsection (3) of this section shall include annual figures and the chosen methodology's numerical standard(s); and

(iii) For systems not fully metered, the status of meter installation and any actions taken to minimize leakage.

(c) Municipal water suppliers will be considered in compliance with this section if any of the following conditions are satisfied:

(i) Distribution system leakage calculated in accordance with subsection (2) of this section is ten percent or less for the last three-year average;

(ii) Distribution system leakage calculated in accordance with subsection (3) of this section meets the compliance level(s) established under subsection (3)(c) of this section for the last three-year average; or

(iii) A water loss control action plan has been developed and implemented in accordance with subsection (4) of this section and the system is meeting the implementation schedule.

(2) Calculate distribution system leakage annually using the following equation:

$$DSL = [(TP - EW - AC)/(TP - EW)] \times 100$$

Where:

DSL = Distribution System Leakage  
TP = Total Water Produced and Purchased  
EW = Exported Water  
AC = Authorized Consumption

(a) Total water produced and purchased, exported water, and authorized consumption must be calculated using data from meters installed under WAC 246-290-496. Elements of authorized consumption that cannot be metered, such as fire flow, must be estimated.

(b) Any loss that cannot be accounted for shall be considered distribution system leakage.

(3) Municipal water suppliers may use an alternative methodology to calculate distribution system leakage if all of the conditions listed under (a) through (d) of this subsection are satisfied.

(a) The alternative methodology is contained in published standards or specifications of the department, Environmental Protection Agency, American Water Works Association, American Public Works Association, or American Society of Civil Engineers.

(b) The alternative methodology is approved for statewide use

and certified by the department, to provide a better evaluation of distribution system leakage than percent of total water produced and purchased and is appropriate for the system requesting to use it.

(c) The alternative methodology contains numerical standard(s) that will be used to determine compliance and action levels.

(d) The evaluation submitted under this subsection shall be prepared under the direction, and bear the seal, date, and signature, of a professional engineer certifying that the methodology was properly followed and the results are accurate, if required by the department.

(4) If the average distribution system leakage for the last three years does not meet the standard calculated in accordance with subsection (1)(c)(i) or (ii) of this section, the municipal water supplier shall develop and implement a water loss control action plan. Municipal water suppliers shall submit the water loss control action plan to the department as part of a water use efficiency program under WAC 246-290-810 and/or upon request by the department. The control methods described in a water loss control action plan shall be commensurate with the level of leakage reported. The following items shall be included in the water loss control action plan:

(a) All control methods necessary to achieve compliance with the distribution system leakage standard;

(b) An implementation schedule;

(c) A budget that demonstrates how the control methods will be funded;

(d) Any technical or economic concerns which may affect the system's ability to implement a program or comply with the standard including past efforts and investments to minimize leakage;

(e) If the average distribution system leakage calculated under subsection (2) of this section is between ten and nineteen percent of total water produced and purchased, the water loss control action plan must include an assessment of data collection and audit conditions;

(f) If the average distribution system leakage calculated under subsection (2) of this section is between twenty and twenty-nine percent of total water produced and purchased, the water loss control action plan must include elements listed under (e) of this subsection and implementation of field activities such as actively repairing leaks or maintaining meters;

(g) If the average distribution system leakage calculated under subsection (2) of this section is at thirty percent or above the total water produced and purchased, the water loss control action plan must include elements listed under (e) and (f) of this subsection and include implementation of control methods to reduce leakage within six months of determining standard exceedance; and

(h) If distribution system leakage average calculated under subsection (3) of this section is over the methodology's numerical standard, the department will take appropriate compliance actions and work collaboratively with the municipal water supplier to ensure the control methods and level of activity are commensurate with the level of leakage.

(5) Municipal water suppliers may request the department approve leakage rates up to twenty percent for systems that serve less than five hundred total connections. The following information must be submitted to the department with the request:

- (a) Production volume;
- (b) Distribution system leakage volume;
- (c) The ability to detect leaks using best available technologies;
- (d) Evidence documenting that:
  - (i) A leak detection survey has been completed on the system within the past six years;
  - (ii) All leaks found have been repaired;
  - (iii) The system is unable to locate additional leaks; and
  - (iv) Ongoing efforts to minimize leakage are included as part of the system's water use efficiency program; and
- (e) Other system characteristics submitted by the municipal water supplier to justify the higher distribution system leakage rate.

#### NEW SECTION

**WAC 246-290-830 Water use efficiency goal setting.** (1) The elected governing board or governing body of the public water system shall establish water use efficiency goals prior to July 1, 2007, for systems serving one thousand or more total connections and prior to July 1, 2008, for systems serving less than one thousand total connections.

(2) Water use efficiency goals must be designed to enhance the efficient use of water by the water system and/or its consumers.

(3) If a municipal water supplier determines that further reductions over current consumption levels are not reasonably achievable, the municipal water supplier shall provide justification that considers historic water use efficiency performance and investment and any other factors that support that determination. Justification must be provided in water use efficiency programs developed under WAC 246-290-810 and in water use efficiency performance reports developed under WAC 246-290-840.

(4) Municipal water suppliers must provide documentation when requested by the department and in water use efficiency programs developed under WAC 246-290-810 that demonstrates the following goal setting requirements have been met:

(a) Goals shall be set in a public forum that provides opportunity for consumers and the public to participate and comment on the water use efficiency goals;

(b) Public notice must occur at least two weeks prior to the public forum. Public notice must include the purpose, date, time, and place of the forum, and where materials supporting the

rationale for the proposed goals can be reviewed;

(c) The elected governing board or governing body of the public water system shall review and consider all comments received;

(d) The following must be made available to the public for the purpose of fully documenting the basis for each goal:

(i) All information listed under WAC 246-290-810(4);

(ii) Annual water use efficiency performance reports prepared under WAC 246-290-840;

(iii) Water supply characteristics description in accordance with WAC 246-290-100 (4)(f)(iii)(B) or source description in accordance with WAC 246-290-105 (4)(f); and

(iv) Description of how public comments provided during the goal setting process affected the chosen goals.

(5) Existing public processes may be used if all requirements listed under subsection (4) of this section are met.

(6) Water use efficiency goals must include:

(a) Consideration of the system's forecasted demand and water supply characteristics;

(b) Measurable outcomes in terms of reduced or maintained water production or usage. Outcomes may be expressed on a per capita, per connection, total system, or other basis as deemed appropriate by the municipal water supplier;

(c) A schedule for achieving the water use efficiency goals; and

(d) Implementation schedule for each water use efficiency measure selected under WAC 246-290-810(4).

(7) The elected governing board or governing body of the public water system shall evaluate and reestablish water use efficiency goals following the process identified in subsection (4) of this section at least every six years and as part of a water system plan approval under WAC 246-290-100 or small water system management program approval under WAC 246-290-105.

(8) Water use efficiency goals may be changed at any time in accordance with subsection (4) of this section. Changes to goals must be identified in the next performance report.

(9) Water use efficiency programs must be modified if any water use efficiency goal is not met. Program modifications must be designed to achieve the system's water use efficiency goals.

#### NEW SECTION

##### **WAC 246-290-840 Water use efficiency performance reports.**

(1) Municipal water suppliers shall develop an annual water use efficiency performance report and must:

(a) Send the water use efficiency performance reports to the department, the consumers, and individuals or entities who request them by July 1st of each year for the previous year;



(b) For systems serving one thousand or more total connections, develop the first water use efficiency performance report by July 1, 2008;

(c) For systems serving less than one thousand total connections, develop the first water use efficiency performance report by July 1, 2009;

(d) Make the water use efficiency performance report available to the public; and

(e) Municipal water suppliers shall submit performance reports in a manner specified by the department.

(2) Water use efficiency performance reports shall include:

(a) Total annual production. Systems with multiple sources may provide aggregate data;

(b) Annual water distribution system leakage totals in accordance with WAC 246-290-820;

(c) A description of the system's water use efficiency goals set in accordance with WAC 246-290-830;

(d) A schedule for achieving the goals; and

(e) A narrative description of progress toward achieving the goals.

AMENDATORY SECTION (Amending WSR 04-12-123, filed 6/2/04, effective 7/3/04)

**WAC 246-290-990 Water system evaluation and project review and approval fees.** (1) The fees for the review and approval of water system plans, project reports, construction documents, existing systems, and related evaluations required under chapters 246-290, 246-291, 246-293, 246-294, and 246-295 WAC are:

(a) Water system plans required under WAC 246-290-100, 246-290-105, 246-291-140, 246-293-220, and 246-293-230.

Project Type	Group A					
	Group B	<100 Services	100 to 500 Services	501 to 999 Services	1,000 to 9,999 Services	10,000 or more Services
Water system plan (New and Updated)	\$134	\$475	\$1,167	\$2,206	\$3,584	\$5,305
Minor water system plan alteration	\$30	\$112	\$284	\$547	\$889	\$1,305

(b) Satellite management agency (SMA) plans for Group A and Group B water systems required under WAC 246-295-040.

Project Type	Total Active or Approved Services				
	<100 Services	100 to 500 Services	501 to 999 Services	1,000 to 9,999 Services	10,000 or more Services
SMA plan for ownership (New and Updated)	\$475	\$1,167	\$2,206	\$3,584	\$5,305
SMA approval amendment	\$99 per hour or appropriate fee from category above, whichever is less				

Project Type	Total Active or Approved Services				
	<100 Services	100 to 500 Services	501 to 999 Services	1,000 to 9,999 Services	10,000 or more Services
SMA plan for operation only (New and Updated)	\$1,167	\$1,167	\$1,167	\$1,167	\$1,167

Note: SMAs owning water systems and submitting planning documents to the department for review shall be charged only the SMA fee.

(c) New plan elements required under WAC 246-290-100, 246-290-105, 246-290-125, 246-290-132, 246-290-135, 246-290-691, and 246-291-140 including:

(i) ~~((Conservation))~~ Water use efficiency; and

(ii) Wellhead protection, shall be reviewed separately by the department and the fee assessed shall reflect the time spent for this review and shall be calculated based on ninety-nine dollars per hour. After the initial submittal, updated information shall be reviewed as part of the updated water system plan and the review fee shall be included in the applicable updated plan review fee listed under (a) or (b) of this subsection.

(d) Project reports required under WAC 246-290-110 and design reports required under WAC 246-291-120.

Project Type	Group B	Group A				
		<100 Services	100 to 500 Services	501 to 999 Services	1,000 to 9,999 Services	10,000 or more Services
All types of filtration or other complex treatment processes	\$337	\$687	\$1,067	\$1,546	\$2,132	\$2,827
Chemical addition only, such as ion exchange, hypochlorination, or fluoridation	\$99	\$199	\$337	\$508	\$719	\$962
Complete water system (an additional fee shall be assessed for review of treatment facility, if any)	\$199	\$475	\$753	\$1,100	\$1,513	\$1,994
System modifications requiring a detailed evaluation to determine whether the system, as modified, will comply with regulations (an additional fee shall be assessed for review of treatment facility, if any)	\$134	\$337	\$547	\$824	\$1,167	\$1,573

Note: In accordance with WAC 246-290-125, project reports are not required for minor projects that are described in sufficient detail in an approved water system plan, and have been reviewed as part of the process for approving the water system plan.

(e) Special reports or plans required under WAC 246-290-230, 246-290-235, 246-290-250, 246-290-470, 246-290-636, 246-290-640, 246-290-654, 246-290-676, 246-291-230 including:

(i) Corrosion control recommendation report;

(ii) Corrosion control study;

(iii) Plan to cover uncovered reservoirs;

(iv) Predesign study;

(v) Uncovered reservoir plan of operation;

(vi) Tracer study plan;

(vii) Surface water or GWI treatment facility operations plan;

(viii) Filtration pilot study; or

(ix) GWI determination reports, shall be reviewed by the department and the fee assessed shall reflect the time spent for

this review and shall be calculated based on ninety-nine dollars per hour.

(f) Construction documents required under WAC 246-290-120 and design reports required under WAC 246-291-120.

Project Type	Group A					
	Group B	<100 Services	100 to 500 Services	501 to 999 Services	1,000 to 9,999 Services	10,000 or more Services
All types of filtration or other complex treatment processes	\$337	\$687	\$1,067	\$1,546	\$2,132	\$2,827
Chemical addition only, such as ion exchange, hypochlorination, or fluoridation	\$99	\$199	\$337	\$508	\$719	\$962
Complete new water system except treatment (an additional fee shall be assessed for review of treatment facility, if any)	\$272	\$613	\$889	\$1,238	\$1,654	\$2,132
New source only (an additional fee shall be assessed for review of treatment facility, if any)	\$199	370	\$508	\$687	\$889	\$1,134
One or more of the following submitted as a package and not requiring a detailed evaluation as determined by the department: Water line installation, booster pump station, modifications to source pumping, piping-valving, controls or storage reservoir (an additional fee shall be assessed for review of treatment facility, if any)	\$134	\$234	\$370	\$547	\$753	\$994
Documents submitted for projects such as water line installation, booster pump stations, modifications to source pumping, piping/valving, controls or storage reservoirs as determined by the department where such projects:						
Comply with design standards established by the department;						
Are prepared by a professional engineer in accordance with WAC 246-290-040; and						
Do not require a detailed evaluation by the department.	\$62	\$115	\$192	\$272	\$377	\$496

(g) Existing system approval required under WAC 246-290-140 and 246-291-130. For the purpose of this subsection the department shall determine whether a system is expanding or nonexpanding.

Project Type	Group B	Group A				
		<100 Services	100 to 500 Services	501 to 999 Services	1,000 to 9,999 Services	10,000 or more Services
NONEXPANDING system not requiring a detailed evaluation by the department	\$260	\$522	\$785	\$1,048	\$1,311	\$1,573
NONEXPANDING system requiring a detailed evaluation as determined by the department	\$391	\$785	\$1,189	\$1,573	\$1,968	\$2,362
EXPANDING system not requiring a detailed evaluation by the department	\$522	\$1,048	\$1,573	\$2,099	\$2,626	\$3,150
EXPANDING system requiring a detailed evaluation as determined by the department	\$654	\$1,311	\$1,968	\$2,626	\$3,281	\$3,939

(h) Monitoring waivers requested under WAC 246-290-300.

Project Type	Group B	Group A				
		<100 Services	100 to 500 Services	501 to 999 Services	1,000 to 9,999 Services	10,000 or more Services
Inorganic chemical monitoring waiver	Not applicable	\$86 per source	\$119 per source	\$150 per source	\$182 per source	\$214 per source
Organic chemical monitoring waiver	Not applicable	\$156 per source	\$219 per source	\$285 per source	\$348 per source	\$412 per source
Use waiver	Not applicable	\$187 per source	\$252 per source	\$324 per source	\$380 per source	\$444 per source
Area wide waiver renewal	Not applicable	\$187 per source	\$233 per source	\$278 per source	\$324 per source	\$357 per source
Inorganic chemical monitoring waiver renewal	Not applicable	\$47 per source	\$60 per source	\$73 per source	\$86 per source	\$99 per source
Organic chemical monitoring waiver renewal	Not applicable	\$92 per source	\$131 per source	\$171 per source	\$208 per source	\$246 per source
Use waiver renewal	Not applicable	\$131 per source	\$176 per source	\$219 per source	\$265 per source	\$310 per source
Coliform monitoring waiver including departmental inspection requested by purveyor	Not applicable	\$401	\$496	\$631	\$803	Not applicable
Coliform monitoring waiver with third-party inspection report	Not applicable	\$124	\$124	\$124	\$124	Not applicable

(i) Other evaluations and approvals. As applicable, these fees will be charged in addition to the basic fees assessed under (a) through (h) of this subsection.

Project Type	Group B	Group A				
		<100 Services	100 to 500 Services	501 to 999 Services	1,000 to 9,999 Services	10,000 or more Services
Well-site evaluation and approval including the site inspection and hydrogeologic information review.	\$199	\$299	\$352	\$437	\$547	\$687
Regulatory monitoring plan <sup>1</sup>	No plan required	\$192	\$260	\$326	\$391	\$456
Unfiltered system annual comprehensive report	Not applicable	\$391	\$654	\$917	\$1,179	\$1,441
<sup>1</sup> A comprehensive document containing coliform, inorganic chemical and organic chemical monitoring plans in accordance with WAC 246-290-300.						
Water system compliance report	\$112	\$112	\$112	\$112	\$112	\$112

(2) To determine the appropriate fee for a noncommunity system, calculate the service equivalent by taking the average population served each day of operation and dividing by twenty-five for a transient noncommunity (TNC) system and two and one-half for nontransient noncommunity (NTNC) system. Use the number of service equivalents to find out what Group A size category to look under and submit the appropriate fee. (All noncommunity systems are Group A systems as described in WAC 246-290-020.)

(3) Additional review and approval fees may be assessed as follows:

(a) The basic fee covers an evaluation, or the review of an initial submittal and one resubmittal if required. If additional resubmittals are required, an additional twenty-five percent of the original fee will be assessed for each additional resubmittal. For water system plan and SMA plan preparation the basic fee also covers a preplanning conference. When the department is asked to participate in other meetings involving the plan such as community meetings, public hearings, or meetings with elected officials, the department is authorized to charge additional fees at the rate of ninety-nine dollars per hour;

(b) Fees for department project approval based on local technical review will be determined on a case-by-case basis as outlined in the applicable memorandum of understanding between the department and the respective local agency;

(c) Fees for services which the department determines are not described under subsection (1) of this section, will be calculated based on a rate of ninety-nine dollars per hour.

Examples of these services include, but are not limited to:

(i) Review and inspection of water reuse projects;

(ii) Collection of water quality samples requested by purveyor;

(iii) Review of alternate technologies requested by purveyor, manufacturer or authorized representative;

(iv) Sanitary surveys, including the time spent as part of the annual on-site inspections for systems under WAC 246-290-690(3) that is in addition to the time necessary to assess watershed control and disinfection treatment;

(v) Well field designations; or

(vi) Transfers of ownership under WAC 246-290-035 or 246-294-

060.

(d) Additional fees assessed by the department shall be billed to the purveyor using an itemized invoice.

(4) If the legislature revises the water system operating permit fee under RCW 70.119A.110 to incorporate into it one or more fees for service currently assessed separately under this section, and the purveyor has paid that consolidated fee, the department shall not assess or collect a separate fee under this section for any such service.

(5) All fees required under this section except as noted in subsection (3) of this section, shall be submitted prior to the department's approval. Payment of fees shall be in the form of a check or money order made payable to: The Department of Health, P.O. Box 1099, Olympia, Washington 98507-1099. Payment of a fee shall not guarantee approval of the submitted document or evaluation request.

(6) Purveyors unable to determine the appropriate fee payment to submit should contact the department.